RACES, LANDS, AND FOOD

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A PROGRAM FOR WORLD SUBSISTENCE

Radhakamal Mukerjee
UNIVERSITY OF LUCKNOW, INDIA

INTRODUCTION BY
Harold L. Ickes

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A NOTE ON THE AUTHOR

Radhakamal Mukerjee, one of the world's foremost economists and sociologists, was born in India fifty-six years ago. A pioneer in comparative economics and in the institutional theory of economics, Dr. Mukerjee is the Head of the Department of Economics and Sociology at Lucknow University as well as acting special advisor to the state of Gwailor, India. His recent works — Food Planning for Four Hundred Millions; The Economic History of India: 1600–1800; and Political Economy of Population — *have made a profound impression upon scholars throughout the world. The present volume,* Races, Lands, and Food, *is one of a series of studies prepared by the Asia Institute, New York, of which Arthur Upham Pope is the Director.*

INTRODUCTION

By HAROLD L. ICKES

ONE may search the globe today, and hardly find an area that has no problem of adequate natural resources to support the people comfortably. Even our own United States is considered by some authorities to be at least on the way to being mildly overpopulated. Considering our own vanishing resources, this circumstance assumes a disturbing aspect, particularly when it is viewed globally.

But aside from our own Nation, there are many others overpopulated to the degree that millions lack the very necessities of life. In some nations, this overpopulation is the result of political policy. Even tyrant dictators of our own generation urged their people on to larger families, on the theory that weight of numbers constituted national power. The three partners of the ill-fated Axis coalition, Germany, Italy and Japan, aspired to be growing nations with rapidly rising populations. They wanted to be great empires regardless of all other considerations. For the most part they ignored the obvious fact that an increasingly large population necessitates increasing inroads on a nation's dwindling resources. In due course, these nations reached a stage of explosive overpopulation, and power-hungry militarists sought to solve the dilemma by wars of conquest for more living space, and more resources.

In still other countries, for the most part the backward ones of the world, overpopulation in an even more acute stage reduces millions of human beings to abject poverty. They are denied the very food to sustain them properly. In these areas, ignorance is largely responsible.

For a number of years, I have been concerned officially and unofficially with the conservation of this Nation's natural resources. I have written much and said much on this subject. Naturally, any consideration of our own national resources, natural and human, involves an assessment of conditions on a world plane. It was with this in mind that I urged upon President Truman some months ago that we invite all nations to send qualified representatives to a world-wide conference on natural resources, a conference that I hope will be held before too long. Our global interdependency impresses itself upon us more forcefully with each passing day. The fact that our own country is so rapidly dissipating its natural wealth is to me a matter of real concern. But equally alarming is the international tendency along this line. Nationally and internationally, we are failing either to conserve or to utilize most wisely what a benevolent providence has given us.

In parts of the world, population is on an increase of startling proportions. Some countries bid fair to double their population in a span of three decades. In making available to these areas the wonders of modern medical science, we have brought about a lower death rate, while failing to balance it by a lower birth rate. It naturally follows that more human beings require more of the essentials of living . . . food, clothing and shelter.

For many millions, these do not exist, at least in the quality and quantity necessary to maintain life on a satisfactory and dignified basis.

The problem, then, becomes twofold. First, is that of reapportioning populations of the earth to assure the availability to them of the essentials of life, and second, the immediate institution of a program of the maximum utilization of world facilities and resources in an effort to produce sufficient food and material to equal our needs. At the present time, world production is short of world needs. In addition, the distribution of what we produce is poor, and this, too, should be remedied.

There is, I hazard to say, no nation in the world which is at present making a complete and most advantageous utilization of the resources within its borders. In our own land lie thousands of acres of untilled soil which our ability to irrigate could bring to rich fertility. The same is true of Australia and broad expanses on the continents of Asia and Africa. These potential food producing areas are idle at the cost of millions of undernourished and starving beings.

Our neglect is not limited to the soil alone, however. There are nations which have not yet troubled to apprise themselves of their mineral resources, to say nothing of beginning to exploit these resources. Mankind is needful of these resources. Globally, we are at least ten per cent short of our food needs. This is the measure of our indifference and of our inhumanity so long as we fail to utilize our assets to the utmost subject always to our duty to save and to build up for future generations.

Mr. Radhakamal Mukerjee in his readable and persuasive book, *Races, Lands, and Food*, pleads not only the cause of millions of his fellow countrymen, but that of millions of his fellows in other lands.

Underlying all political questions involving impoverished and hungry people is their stake in a decisive improvement in their physical wellbeing. India, possessed of the second largest arable area in the world, could, with the institution of average methods, double her food production. In doing so, she would become a world market and contribute substantially to the attainment of a permanently higher level of world trade. But agricultural improvements alone will not remedy the situation. It is bigger in scope than that. It is international in its implications, and so pressing as to require serious thought and inquiry, and obligatory action on the part of each member of the family of nations.

In this matter of sustaining life, we are irrevocably and increasingly interdependent. Well may we recognize this interdependence by proving ourselves equal to increasing the wellbeing of human beings of all lands and to end wars, fears and wants.

In this book, Mr. Mukerjee has treated this most basic and critical of world problems with objectivity and scholarly judgment. His appraisal serves to remind us pointedly that world peace and security are dependent upon something more than disarmament or political status. As he so aptly puts it: "Social justice and world peace are one and indivisible."

Washington, D. C.
May, 1946

RACES, LANDS, AND FOOD

PREFACE

THE economic interdependence of the world and the need of world purchasing power to combat postwar unemployment require today the global thinking and planning of a stable peace. While the principles of the Atlantic Charter may form the core of postwar global planning, there is a tendency to treat the Charter, giving assurance to "all the men in all the lands" that "they may live out their lives in freedom from fear and want," as being framed with a view to Western conditions. For the universalization of the principles that will shape a better future for the globe, it is necessary to become specific, and to have a Pacific Charter guaranteeing political freedom, economic freedom, and freedom of migration to the Asiatic peoples. Freedom from want for the vast millions of Asia depends as much upon a planned industrialization and a social policy of population restriction as upon planned agricultural colonization and settlement in the vast tropical and subtropical regions of the world, where the European peoples cannot work and thrive on the land. Mankind has now fallen short of cultivated area to the extent of at least 20 per cent. The unoccupied arable lands of the earth lie mostly in the hot climates where only the Asiatic groups can toil in the fields. Freedom of Asiatic emigration may not only remedy the present severe global food-shortage but also improve the purchasing power of a billion Asiatics, thus preventing an industrial slump in the postwar world. Mere political adjustment in India, China, and the whole Far East, or their rapid industrialization without a policy of the Open Door in the Pacific, can neither safeguard freedom from want nor bring about lasting peace in Asia. Peace in the West without peace in the East will be a patched-up temporary peace.

Peace should not only be global but should also be founded on global justice if it is to be enduring. This fundamental point must be stressed in postwar political and economic discussions concerning world security and improvement in the standard of living of all peoples.

Another point that requires emphasis in the international organizations now being envisaged, is that the problems of the Pacific should be examined against the entire Asiatic background. There is a tendency to treat the islands of the Pacific from the point of view largely of the European settlers who have benefited from their ownership, trade, and exploitation. The Pacific is, to a large degree, an Asiatic Ocean, and the islands, large or small, including the sub-continent of Australia and New Zealand, may be said to belong to a pan-Asiatic system. In this part of the globe, which is largely uninhabited, the doctrine of Asiatic *Lebensraum* cannot be dismissed offhand nor the doctrine of the White Man's reserve taken for granted. As a matter of fact, the acid test of the Atlantic Charter will be the satisfactory settlement of the racial issue of the Indians in South Africa and the revision of the White Australia Policy. The British Empire, which comprises the largest empty spaces of the globe, has now evolved into a Commonwealth of Nations. Colonial possessions and dependencies are remnants of the Empire that are being reduced with the extension of the commonwealth. The essence of the commonwealth idea is utterly incompatible with the color-bar in respect of Oriental migration to the open lands, and colonial monopoly in respect of trade and raw materials under the influence of mercantilist doctrines. The concept of trusteeship by the Occidental peoples for the colonial dependencies should be now revaluated in more positive terms of equality of status; and economic policies ensuring a uniform standard of living and level of social services should be regionally planned and related to a world economic planning.

In such a regional Pacific planning, the interests of the European ruler and *entrepreneur*, the Asiatic trader and agriculturist, and the indigenous population have to be carefully reconciled and integrated with the major aim of enabling the backward areas to develop both economically and politically as soon as possible. An irresponsible, profit-seeking capitalism joined hands with military and economic imperialism in the previous epoch for the ruthless exploitation of both the natural and human resources of large parts of the globe. The development of the backward areas was sponsored and directed by the planter, the *entrepreneur*, the trader, the missionary, and the ruler — resulting in the disorganization, demoralization, and dismay of the indigenous populations. In the coming epoch, such development will have to be initiated by the peasant who is a lover of peace, justice, and neighborliness, and who, whether an Asiatic immigrant or a native, must be given every possible governmental aid and encouragement. It is through the recognition and enhancement of the status of the peasant-proprietor, neither under the compulsion to grow crops at the behest of the planter, middle man, or money-lender, nor under the fear of being squeezed out by the immigrant farmer, that the native populations will obtain their birthrights of freedom, peace, and security.

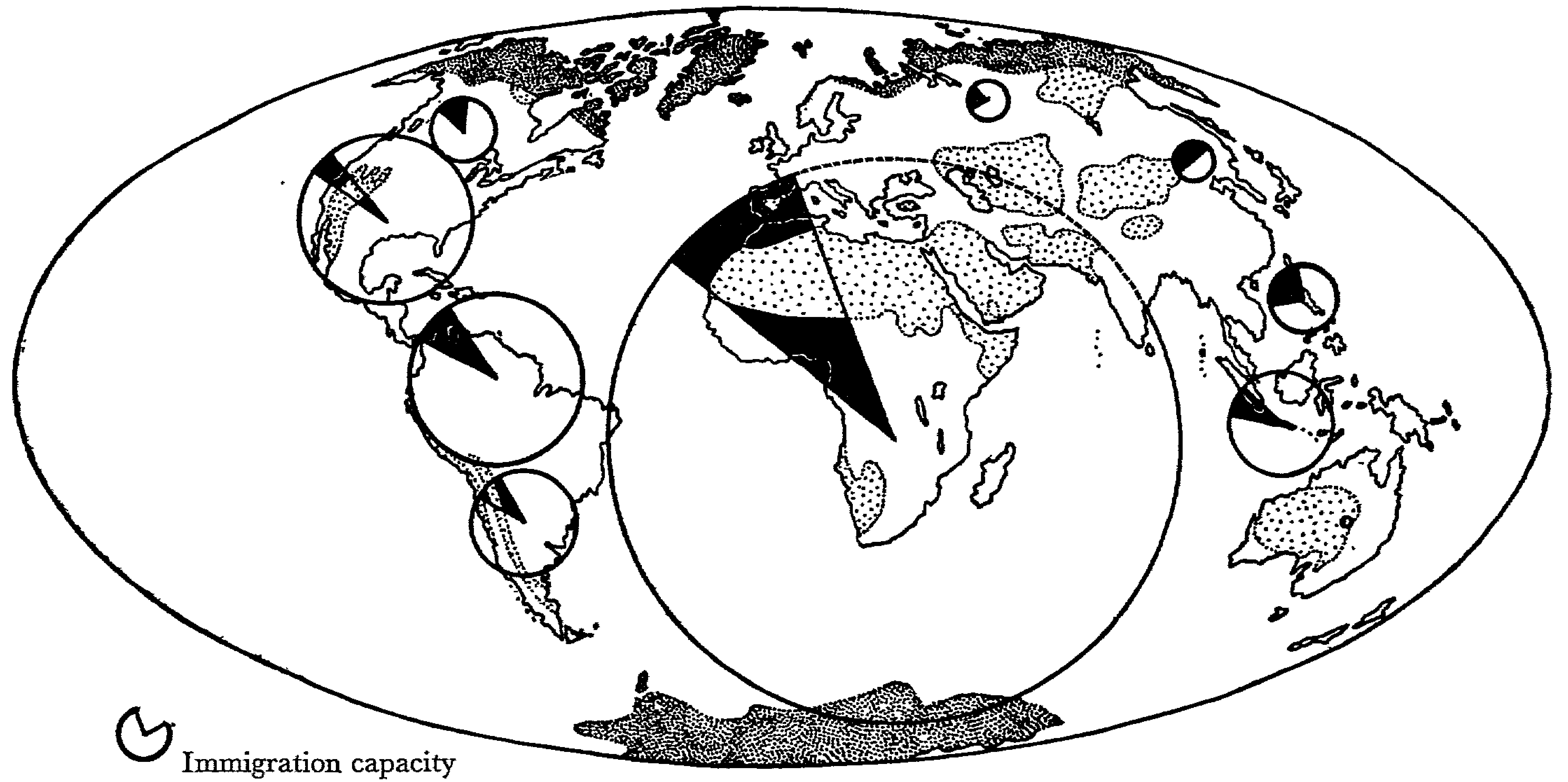
Given planned agricultural colonization and development in the Pacific world, the increase of population will lead to the development of intensive and diversified farming and of secondary industries. Neither plantation economy nor a sudden mushroom industrial growth fostered by tariffs and exclusion of migrants, but a balanced development of agriculture and simple manufactures, or agricultural industry for home consumption, holds the key to the economic development of backward and pioneer regions. The end of economic imperialism in the colonies of the Great Powers will go hand in hand with the supersession of the European system by intensive agriculture, development of local industries, and diversification of tropical economies. These will be greatly facilitated by Asiatic emigration. Whether in Africa or in the Pacific, in the Guianas or the West Indies, Indian and Chinese intensive farmers have taught the indigenous populations the use of the plough, crop rotation, well irrigation, and rural arts and handicrafts. Much larger areas could yet be reclaimed from the steaming jungle, marsh, and sand dune by the Asiatic pioneer peasants whose success rests on the appropriate type of crops and intensive farming, which require much smaller capital investments and far less varied and ramifying social services than the commercial agriculture of the migrants from the temperate lands; besides, this kind of farming is far more educative for the indigenous populations.

In Asia and the Pacific, freedom from want implies both the planning of Asiatic migration and the orderly abolition of the colonial system; and in many dependencies, the one will aid the other. Only an international authority, or a regional authority subordinate to it, in whose favor the Great Powers have to sacrifice some of their independent rights in the interests of a cooperative world plan of reconstruction, can cope with these delicate and difficult tasks and build a better future for the world. The rescue of Southeast Asia and the Pacific from Japanese subjection will not mean much if, in the name of imperialism, trusteeship, or a regulated international economy, the economic adjustment of a billion Asiatics and the utilization of the empty lands of the earth are hampered by anachronistic commercial and migration policies. The statesmen who write the new peace must think in terms of the globe and of all the peoples of the earth, without distinction of race, color, or privilege. A revitalized and expanded democratic humanist-liberal tradition of the modern world, which involves the equalization of human rights and scale of living everywhere, even with some losses to hitherto privileged groups, must be married to that equally modern and significant tradition of science, which implies an integrated world community on the basis of the economic collaboration of different peoples and regions; thus and thus alone, the peace of the world may be kept and an adequate system of international economic cooperation successfully elaborated in the future.

RADHAKAMAL MUKERJEE

University of Lucknow

MAP 1. RECEPTION CAPACITIES IN THE PIONEER ZONES



◔ Immigration capacity

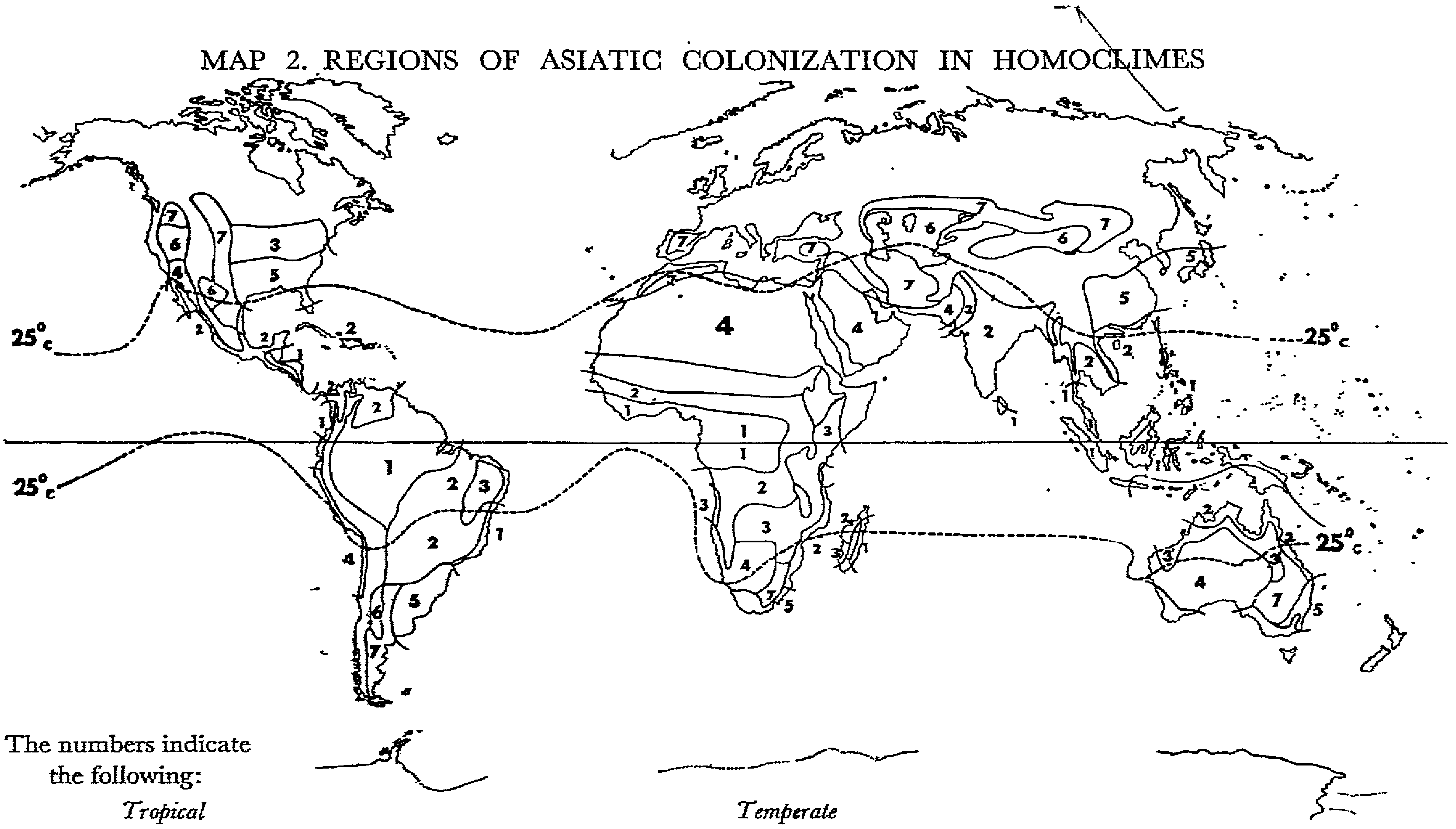
○ Total population capacity

▼ Present population

░ Too arid for cultivation

▓ Temperature too low at lower altitudes

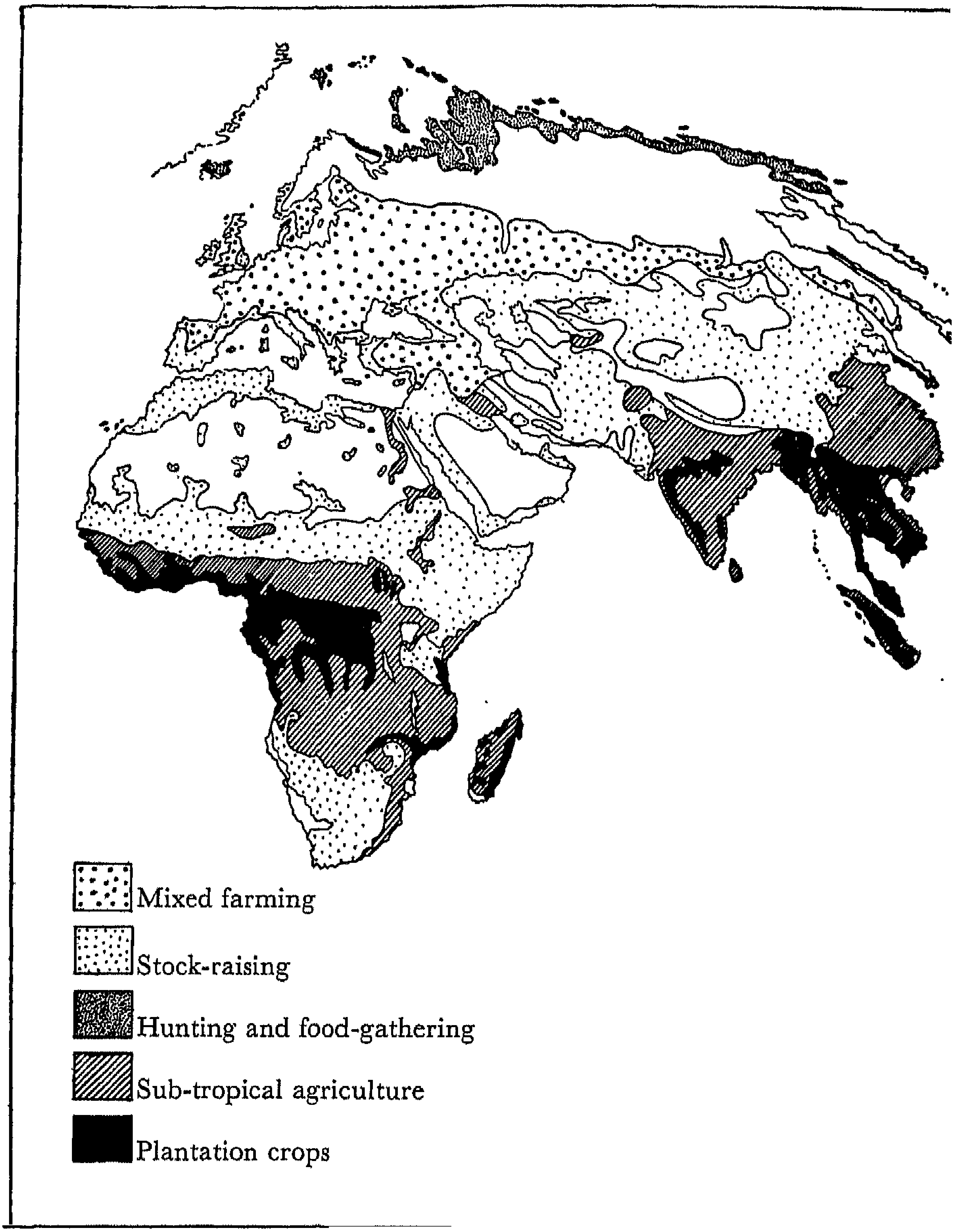
MAP 2. REGIONS OF ASIATIC COLONIZATION IN HOMOCLIMES



The numbers indicate
the following:

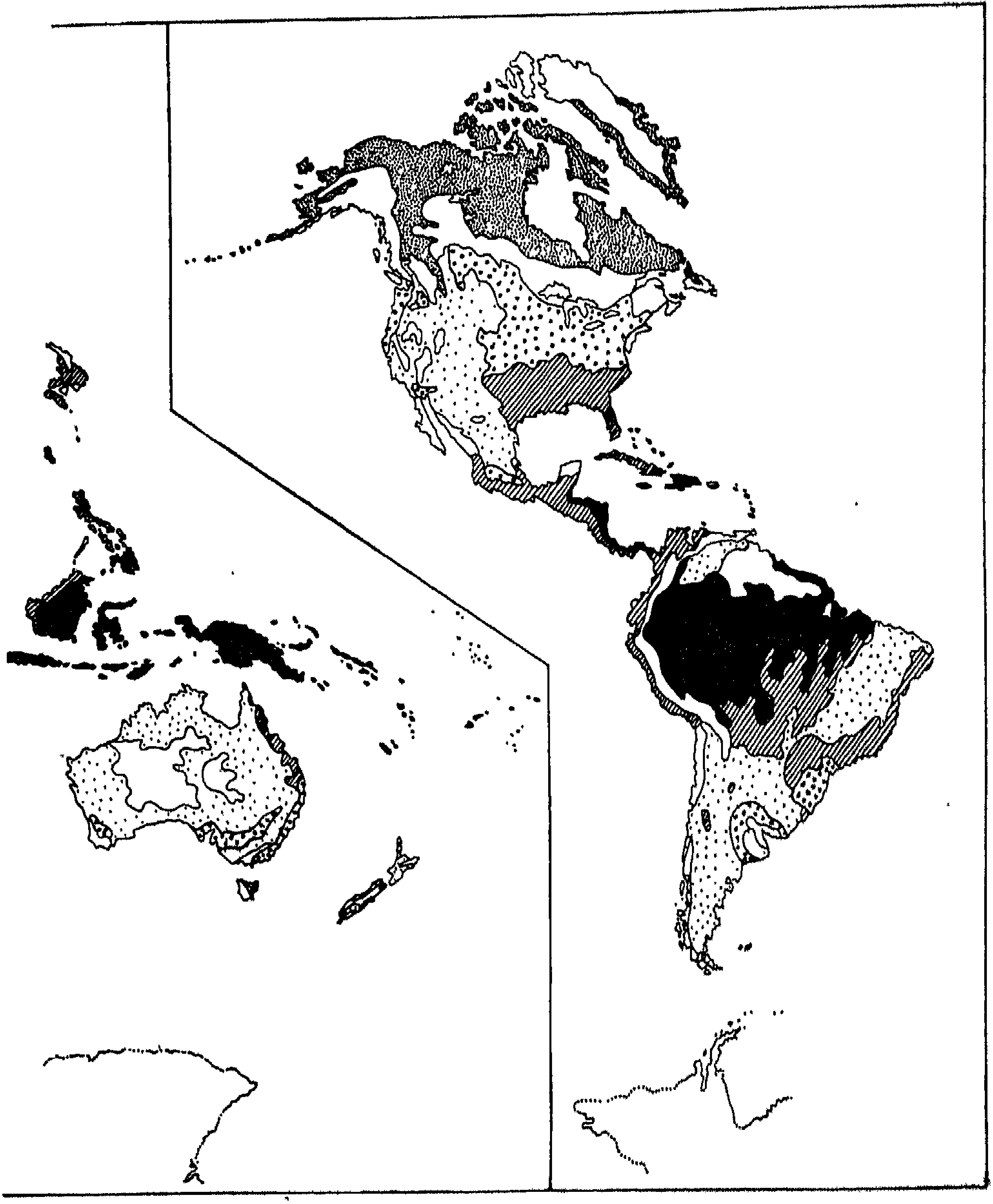
Tropical	*Temperate*
1 Equatorial	5 Monsoon or warm temperate coast
2 Tropical monsoon	6 Temperate desert
3 Tropical semi-arid	7 Temperate semi-arid
4 Hot desert	

The 25° c - - - - isotherms of mean annual temperature of 25° c

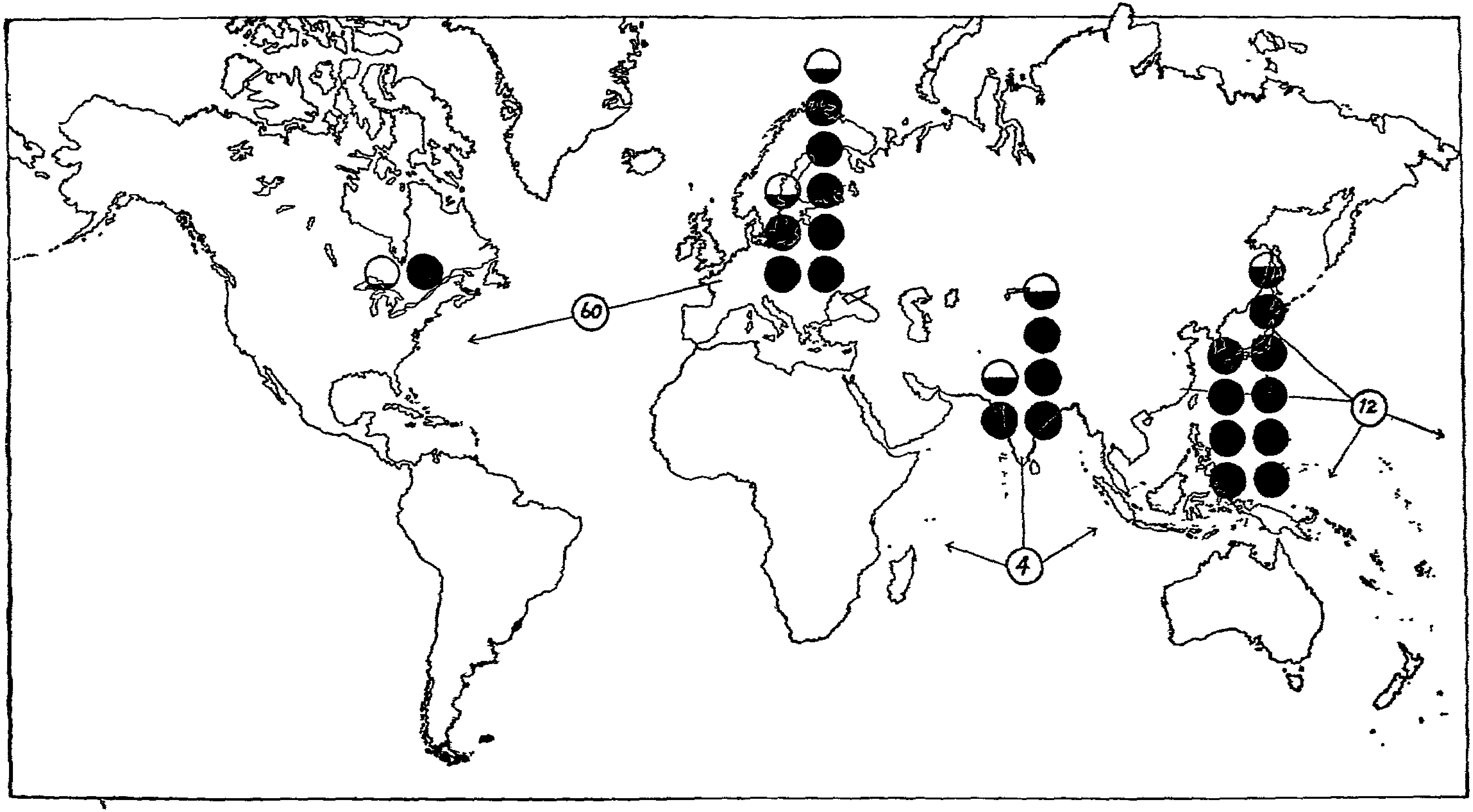


MAP 3. REGIONS OF INADEQUATE

AGRICULTURAL EXPLOITATION



MAP 4. DANGER ZONES IN WORLD POPULATION AND MIGRATION



Each solid black circle indicates population of 100,000,000. The arrows indicate the trend of migration, and the numbers enclosed in the white circles indicate the volume of emigration. N. B.: Reading vertically, the circles on the left indicate population a century ago; those on the right, present population.

CHAPTER I

THE PEOPLING OF OPEN SPACES

Migration and Equalization of Standards of Living

THERE is a compelling recognition today that, for the sake of lasting peace, contrasts of population and standards of living should be mitigated or abolished in the world. The Atlantic Charter, the Philadelphia Charter of International Labor, and the Declaration of the Hot Springs Food Conference of the United Nations [1] season realities with hopes and means for the abolition of hunger, poverty, and economic insecurity, and for the equalization of standards of living for all peoples. Poverty and hunger anywhere, it must be reiterated, constitute a danger to prosperity everywhere; and the blueprints of international economic collaboration for the fuller and broader utilization of the world's resources are being made ready. Such international cooperation, if it has any practical meaning for half of the world's humanity living in Southeast Asia on only 13.6 per cent of the world's land surface, would include reversal of the older policies of colonial exploitation and exclusion of Asiatic migrants from the world's open spaces. Such policies belong to the past and were no doubt associated with the phenomenal, increase in the population of Europe (from 240,000,000 to 542,000,000 in one century), accompanying its industrialization and world hegemony. There is today a chronic global food shortage unprecedented in the past. Mankind has fallen short of cultivated area by at least 20 per cent; while at the Hot Springs Conference it was estimated that 75 per cent of the peoples of Asia are living below decent health standards.

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[1] And since the foregoing was written, Bretton Woods, San Francisco, and the opening sessions of the United Nations.

Victory must be followed by a new era, characterized in the words of the Declaration of the United Nations at Hot Springs, by an expansion of world economy to provide the purchasing power sufficient to ensure adequate food for all peoples. There are vast open spaces in Southeast Asia, Africa, and the Pacific where the white man cannot undertake manual labor nor thrive on the land, but where the ban on immigration of the yellow and brown man resulting from a narrow racial, nationalistic, or industrial policy thwarts an expansion of the agricultural front that might materially reduce world food deficiency.

The potentially arable voids in tropical and subtropical zones cover today some 3,200,000 square miles, as compared with 1,000,000 square miles of unused lands in the temperate zones. Over the greater part of the tropical and subtropical territories that remain unutilized, the only successful agricultural settlers can be the Asiatic groups; but Europe's political suzerainty is used both against Asiatic immigration and the natural evolution of the colonies and dependencies to a higher stage of economy. On the other hand, the stretches of unoccupied arable land in the temperate zones, appropriate for white colonization, have already approached the natural frontiers of drought and frost, except along the narrow wheat belts of the Canadian Northwest and Eastern Siberia. These pioneer regions cannot, however, go over to the plough without vast expenditures on social services for the white migrants, which will not easily be forthcoming in the postwar period. Moreover, the agricultural exploitation of these cold territories will require unusual physical endurance.

Prospects of Migration — European and Asiatic

The opinion has gained ground in Great Britain, the great colonizer and empire-builder, which from 1820–1920 sent

10,000,000 people overseas, that the individualistic method, viz., the prospective settler migrating with his family on his own initiative or that of a friend or relative, is more "congenial to her national bent"; and that this method will account for the great bulk of migration from Great Britain in the future. The British Inter-Departmental Committee on Migration Policy observed in 1934: "We find it very difficult to believe that organised group settlement could deal with, at the most, more than 2,500 families — say 10,000 souls — in a year; neither the localities, nor the capital, nor the administrative capacity for anything in excess of this — or perhaps anything as large as this — are available."

The world's cultivated area increased by about 500,000,000 acres between 1850 and 1900. Mere driblets of immigration by the individualistic method cannot add another 500,000,000 acres to the present total cultivated area in the world, of 5,250,000,000 acres, nor can they prevent the global food shortage from checking the progress of civilization, as we reach the middle of the present century.

How again could Europe spare migrants for colonization when her own population structure is such that a rapid decline is forecast for all her countries? Great Britain's population will decline by 1975 from 46,000,000 to 31,400,000; France's population from 42,000,000 to 39,300,000; and Germany's population will remain about the same. All such estimates by European demographers do not reckon with the effect of the present war on the slackening of the birth rate and a more rapid diminution of population in all the belligerent countries. It is only the U.S.S.R., which, following the precedents of other European countries in stimulating population growth by marriage and family allowances, will be able to check any decline of the present population as a result of World War II. The Soviet Union may even record an appreciable increase. By adopting the practice of vernalization in respect of wheat and other crops, the U.S.S.R. might still further extend the wheat zone and people her Siberian territory where the short Arctic summer is unfavorable for large-scale agriculture. Already the Russian colonists extending into Siberia almost up to Lake Baikal, comprise about 20,000,000 persons. As yet, however, only about a third of the arable land in Siberia is utilized. The habitable and tillable area of Eastern Siberia is larger than Manchuria and can easily support an equally large population, i.e., about 35,000,000 persons.[2] The Russians have also settled in Manchuria where they already number about half a million. Still, it is a question to what extent even vigorous pioneering folks like the Russians and the Chinese, who are also establishing themselves in Eastern Siberia with such crops as beans, kaoliang, corn, maize, and millet that are more appropriate for this region than the Russian cereals, wheat, rye, oats, and barley, will be able to endure hard manual toil in this climatic fringe.

The most remarkable recent migration and settlement in the world is represented by the Chinese extension of the agricultural front into the cold temperate belt in Asia. Chinese colonists, who first trekked in the first years of the century, now number about 30,000,000 in Manchuria, 1,257,000 in Mongolia, and 350,000 more in Siberia.[3] Such marvelous success is due both to their capacity for acclimatization in extreme cold and extreme hot fringes and the adaptive nature of their crops and agricultural practices. The climatic problem is being tackled in the Arctic fringe both by the Russians and the Chinese; but in Inner Asia, pastoral folks still withstand the introduction of farming by the Chinese, and hold large areas of land which could be given over to the plough.

In India, two big mass migration movements are now taking place — both larger in dimensions than such movements anywhere else except in Manchuria. One is the extension into the

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[2] See Hallett Abend, *The Pacific Charter*, p. 150.

[3] Soviet restriction of immigration should not be overlooked.

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newly irrigated areas of the Indus valley, and the other along the southern bank of the Brahmaputra River in Assam Province, where vast tracts of dense jungle as well as *char* lands (sandbanks) are reclaimed for the plough and for cattle-raising by immigrants from the neighboring densely crowded areas of Eastern Bengal. In the Brahmaputra valley the colonization began sometime before 1911, and it is now reaching the extreme northeastern frontier of India. The total number of the new colonists in Assam is now over half a million. Without much capital, without fuss, and without any burden to the government, half a million people have carved out holdings from thick forests, reared large herds on sandbanks and riverine tracts, and established prosperous villages in the virgin wilderness, contributing materially to the wealth and prosperity of the entire region. Recently, however, the adoption by the Assam Government of the "line system" of settlement of immigrants from Bengal has greatly impeded the current of migration.

By and large, it will not be possible for the European peoples to participate in any appreciable measure in future world migration and settlement. In the 19th century, Europe's rate of population increase and overseas migration far eclipsed that of Asia. Europe showed a net increase of 302,000,000 persons, and a net emigration of about 45,000,000 between 1800–1930. Of these 45,000,000, about 24,000,000 went to the United States, 15,000,000 to other parts of the Americas, and 6,000,000 to other continents. Europe's unprecedented population increase and emigration have brought about a serious unbalance in world population and resources in the 20th century, the European powers extending their political dominance over Africa and Asia, controlling the political life of 57 per cent of humanity, and limiting or banning Asiatic immigration in their colonies and dependencies, where the plantation economy has also proved a serious obstacle to the development of variegated cereal-cultivation and self-sufficiency.

Effects of European Migration

The overseas expansion of European population has left in its wake a sordid trail of blood, slavery, and disease. In the 16th century, the cruelty and exploitation of the Spaniards reduced the native populations, and today Latin America can show only a small fraction of the original human stock. European migration to North America and the inland masses of the Pacific Ocean carried with it various contagious diseases from Europe, which worked havoc among the natives. Sauer [4] observes: "Relatively benign Old World diseases became New World plagues. Death by plague out-traveled the white man and emptied the land for him so that he had an abundance of unoccupied land for all his wants. In good measure the occupation of the New World has been a matter of refilling it with population."

In Africa also, European expansion and exploitation have led to a virtual decimation of the native races. It has been estimated that since 1884, the depopulation of Central Africa alone has exceeded 10,000,000. In the Congo the native population has been reduced from 12,000,000 to 8,000,000. In German East Africa, the destruction of African life was estimated at 120,000; while in German Southwest Africa and Togoland, the loss was 50,000 each. In the Pacific Ocean, the ghastly experiment of the Franco-British condominium in the New Hebrides was primarily responsible for a reduction of the native population from 650,000 to 65,000. In Australia, there was also a serious depopulation of the aborigines, estimated at 300,000 at the beginning of the 19th century. Aboriginals and half-castes in that continent have now been reduced to some 75,000. In Fiji, the native population declined from 150,000 in the middle of the last century to 90,000. Since 1921, however, the decline has been checked. The Maori population of New Zealand was more than 100,000 in 1850, declined to 37,000 in 1870, and has now risen to about 90,000. Roberts estimates that of the total estimated population of the Pacific Islands, 25.48 per cent is decreasing and 0.16 per cent is faced with annihilation. Apart from the effects of attacks, kidnappings, and outrages by Europeans and the introduction of firearms, the spread of new diseases of which the natives had no previous experience, caused great havoc. Among such diseases are tuberculosis, malaria, measles, whooping-cough, chicken-pox, dysentery, venereal diseases, and pulmonary affections.[5]

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[4] Carl O. Sauer, *The Prospect for Redistribution of Population* in *Limits of Land Settlement.*

The Americas, where the climate favored European mass migration and colonization, saw the displacement or extinction of the indigenous population. The West Indies, Mexico, and the Southern States in the United States also saw the transplantation from Africa of the Negroes to labor in the sugar, tobacco, cotton, and rice fields where the American Indians would not work. Kuczynski estimates that until 1836, 12,000,000 Negroes were imported into America, and that before the European mass emigration of the 19th century was well under way, the number of Negroes brought from Africa to the Americas was probably greater than that of the white people. Another estimate, that of Ferenczi, is that in the course of three and a half centuries preceding 1888, about 20,000,000 Negroes were brought from Africa to North America, the British West Indies, and Brazil. The social problem of Negro assimilation was thus introduced into the United States by colonial slave traffic and the exigencies of estate-farming in the New World.

In both Africa and Australasia, the tropical climate did not permit European colonization on a large scale. The wholesale displacement of the natives was, therefore, out of the question. The native populations were also numerous and vigorous. These could not all be extirpated, driven back to the *veldt*, or enslaved for work on the farms or plantations of the white settlers. On the other hand, the plantation system adopted by European capitalists and *entrepreneurs* in tropical and subtropical lands indirectly contributed to the disruption of tribal life and deterioration of local subsistence conditions, due to the migration of labor, the carrying off of labor from their tribal settlements, and higher taxation. Further, in nearly all tropical or subtropical territories which have been opened up by the European planters and *entrepreneurs*, their monoculture has proved to be a destructive economy. From Kenya, Nigeria, Nyasaland, Basutoland, South and East Africa, reports leave no doubt that soil erosion and dissipation have rapidly destroyed the fertility and supporting capacity of the land, and that the debit column of the white man's land exploitation cannot be continued indefinitely. "From Capetown to Cairo European influence has been responsible for the rapid and in places now uncontrollable biological deterioration of the land," observe Jacks and Whyte.[6] Africa's Dust Bowl is gradually but inevitably expanding.

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[5] See my "*The Political Economy of Population,*" pp. 154–155, and also Carr-Saunders, "*World Population,*" p. 301.

§ *European Retreat from the Pioneer Fringes*

As a matter of fact, Europe's expansion and settlement in the 19th and 20th centuries have been by a process of soil exhaustion, desiccation, and denudation, "skimming the cream from the earth." The European farmer's one-crop cultivation, whether cotton, tobacco, and cane, or plantation crops like tea, coffee, cocoa, and rubber, has dissipated soil assets everywhere. In the United States, cotton destroyed the land in the South. As the pioneer invaded the semi-arid plains with cotton and corn, he inflicted irreparable damage to the soil. It is estimated that 30–50% of the original total fertility of the United States has already been destroyed. European tillage practice is adjusted to a well-distributed rainfall, infrequency of torrential rains, and protection from soil moisture. In the new lands, especially where the European has invaded the prairie with his plough, his crops and agricultural methods have proved unsuitable and damaging, and his dry farming and animal-raising have wasted soils and grasslands to such an extent that his colonization and settlement are now meeting with serious rebuffs and setbacks. Sauer remarks: " The rush of people into new lands for their commercial exploitation has brought about an extent and degree of destructive exploitation of the land which we are just beginning to realize and which is extremely difficult to arrest. . . . As yet uncalculated areas of land that have been under use at most for a few generations have been gutted or damaged in such a fashion that they can no longer maintain their economy or take care of their present population. And this is an outstanding feature of the new lands of the earth, not of the old inhabited ones. In this sense large parts of North America, Australia, South Africa, and Southern South America have become problem areas as to the possibility of maintenance of their population." [7]

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[6] *The Rape of the Earth, A World Survey of Soil Erosion.*

All this has accompanied a retreat of European settlement from some thinly populated areas in their new lands. In the decade 1921–1931, Australia, which is almost a manless continent, saw a definite withdrawal of settlers from her inner areas of less than 15 inches of rain toward the more humid regions near the coasts. For the country as a whole, as a result of the present trend of natural increase, absence of migration, and individual and corporate ownership of vast tracts of unutilized lands, the population will begin to decline in 35 years' time. In North America, as Mackinder points out, " the center of population has ceased to move appreciably westward." The United States is not a densely inhabited country, a large part of the population being concentrated in the Northeast. The movement towards the Middle West and the West is not at all established. It is not definite to what extent the Tennessee Valley project will be able to divert and stabilize population in a hitherto neglected region. On the other hand, the recent exodus of ruined settlers from the semi-arid areas of the American Dust Bowl has been a remarkable pointer. Professor Fawcett observes in this connection: "In these semi-arid regions it seems that close settlement had been pushed beyond its safe limits. The system of 'dry farming' which had been widely introduced, involves the destruction of the natural vegetation cover and the loosening of the top soil. Over-grazing has a similar effect because it compels the cattle to pull up and devour the stems and roots of the grasses. When this is followed by a more than usually dry season, accompanied by strong winds, the fine top soil is blown away and with it most of the plant-food. So both dry farming and over-grazing are desert-makers."[8] Man-made deserts are extending through the semi-arid agricultural belts in the United States.

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[7] *The Prospects for Redistribution of Population.* In Bowman: *Limits of Land Settlement*, pp. 16–17.

Scientific Principles of Migration and Settlement

European colonization and settlement have now overreached themselves in many areas but not before tragically destroying or wasting human and soil resources. The surpluses of population available in the 20th century are not from Europe and North America but from Asia, for planned settlement in the tropical and subtropical pioneer belts whence some 3,200,000 square miles of arable land have to be carved out from the jungle, marsh, and sand dune. Even in the new lands settled by the European colonists, population is either stationary or declining. Both the United States and Canada suffer from "relative" over-population, some sort of "economical conditioned overpopulation." How will the great open spaces be filled up and utilized if pioneer country after country, carved out and reserved by the Europeans, shows a decline of net reproduction rates? Compare the following coefficients of net annual gains:

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[8] Sectional President's Address, *Report of the British Association for the Advancement of Science*, 1937.

U. S. A. (Whites)	1.8 (1930)	0.99 (1937)
Australia	1.02 (1920–22)	0.99 (1937)
New Zealand	1.29 (1930)	1.02 (1938)
Union of South Africa	1.424 (1924–29)	1.295 (1937)
Canada	1.078 (1930)	0.947 (1936)

Prof. Arnold Plant observes in this connection: "Unless the trend of the birth-rate is reversed, migration alone will make possible the development — in so far as it depends upon a larger labour force — of these regions which offer for the human race, both those who settle and those who trade with them, a better life." No wonder Prime Minister Hughes warned Australia some time ago that she "must populate or perish"; and an Australian economist, Forsyth, has also pointed out that superficial measures will not stimulate population increase for "in these days you cannot get babies at bargain prices." [9]

Uncontrolled migratory movements that forcibly change national boundaries, as well as discriminatory policies excluding certain racial groups are equally inconsistent with world stability and wellbeing. Science can as quickly repair the losses of war as it can forge the bonds of interest and goodwill between peoples. Science as applied to progress in agriculture, horticulture, and animal raising, tells us that importation of varieties and strains from similar climatic regions (homoclimes) holds the key to successful economic reconstruction and development. Thus, science forecasts that the agricultural settlement and progress of the vast tropical and semi-tropical voids can rest only on the planned migration of Asiatic peoples like the Chinese and Indians. If the wheat-growers have shown their mettle by extending their agricultural front into the climatic fringes of Saskatchewan, Alberta, British Columbia, and Asiatic Siberia, Chinese and Indian colonists have also shown theirs by successful rice cultivation under hazardous conditions in Ceylon, Malaya, Sumatra, Borneo, the Guianas, and certain Pacific Islands in Oceania. In future settlement of the pioneer fringes, it will be unwise to disregard the reciprocal interdependence between climate, agriculture, and dietary of the colonizing peoples.

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[9] W. D. Forsyth, *The Myth of Open Spaces*, 1942.

Oriental colonists will be rice-eaters and rice-growers. Rice thrives best in the flood plains of monsoon lands. Colonists from China and India have extended rice cultivation and introduced a new era of prosperity into Indo-China, Burma, and British Guiana; but rice may also invade the rainy tropics if it can be carried there by the Asiatic colonists. Several rapidly growing varieties of rice may be grown in the same field, taking advantage of the continuous rainfall of the equatorial region. Along with the different varieties of rice, these peoples may also grow root crops such as aroids. No people are more efficient than the Indians in speedily reclaiming and colonizing swamps and river-bottom lands and making profitable use of them by the culture of rice and various kinds of vegetables and tubers. The success of the Indian peasants, cultivating in knee-deep water in the delta regions of Burma and Guiana, amply testifies to this. Unlike all good wheat lands, the great good rice lands are not yet occupied. Central America, Brazil, Central Africa, and the coastal plains of Australia can yield extensive valuable rice areas that may effectively reduce the rice shortage of India, China, and Japan. Rice grown in the tropical rain forests of South America may support about 2,400,000,000, and again in the forests and savannas of Africa with a population capacity of another 2,300,000,000. Speaking about the extension of the rice belt to appropriate but unutilized climatic zones, Wickizer and Bennett observe: "Enormous land areas where rice is of negligible importance stretch north and south of the equatorial rain forests, especially in South America and Africa; and climatologists indicate that the climates of these regions fall into the same broad classifications as those prevailing in the principal rice-producing regions especially of India and the Indo-Chinese peninsula."

Similarly in the East Indies and the Pacific Islands, rice, maize, or the grain sorghums could be cultivated successfully everywhere if the Chinese and the Indians were allowed entry. Rice in the southern hemisphere is not grown as far from the equator as in the northern hemisphere. In Africa the present limit is at 26° S. on the east coast and 18° S. on the west. In South America, rice-growing reaches 24° S. in the east. In Australia rice cultivation has been extended as far as 35° S. "It is entirely possible that in the future rice culture may be pushed beyond these boundaries and further toward the earth's poles."[10] Again, the tropical arid and semi-arid areas in Eastern Brazil, East Africa, Madagascar, Mozambique, the Sudan, and North Australia could be adequately utilized by the Indian and Chinese colonists who might successfully extend the farm-line through their dry cereals such as jowar, bajra, and marua. Or, again, since Manchuria, Inner Mongolia, and Siberia have now become fields of modern Chinese colonization, in like manner the Chinese could effectively push the frontiers of cultivation in the arid upland regions of the Canadian West, where the North Chinese and Manchurian crop, kaoliang, oil-seeds, and beans, would be able to resist drought periods of considerable duration. Already the introduction of proso (which is an important food staple of Turkestan and Siberia) and of Chinese kaoliang into some of the arid states of America such as Minnesota, Oklahoma, and Texas has proved to be the mainstay of the American settlers. Similarly, the drought-resisting millets, oil-seeds, and grams of Northwestern India could be usefully introduced by Indian peasant colonists into the barren semi-arid stretches of Canada. Thus vast arid areas in North America which are now settled only by cattlemen can be brought under the plough and the harrow if Chinese and Indian immigration is encouraged on a reasonable scale.[11]

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[10] Wickizer and Bennett, *Rice Economy of Monsoon Asia*, p. 295.

Planned Pioneer Settlement

Asiatic settlement in the pioneer regions has to come under proper and intelligent international regulation adjusted to the needs of agricultural economy of each region, which will have to be carefully surveyed and planned in advance, area by area, for land reclamation and utilization. "In the past, the British Dominions and Latin America have tended to take their immigrants in large gulps, each gulp being associated with the greatly increased production of some commodity for export. The digestion of each mouthful has led to a worsening of the country's terms of external trade, due to a glut of the commodity concerned, as a result of which the digestive capacity of the country has then been low for some considerable time."[12] The ideal in the case of Asiatic settlement will be a steady rate of intake of immigrants, the large majority of whom will be peasants with a sprinkling of artisans, shopkeepers, traders, and professionals, and their planned distribution in the agricultural belts, in order to develop a balanced agricultural structure of the land. The actual rate of intake will be governed by the rate at which agricultural extension actually takes place.

Only a scientific human ecology and an absence of racial prejudice could thus bring about a fair planning of the world's population and unutilized resources. There is need to study in each pioneer belt each soil type, each vegetation type, and each rainfall type in order to find out crops and methods of cultivation from the zones that have the same climatic controls. The work of the Interim Commission appointed by the Hot Springs Conference and the United Nations Relief and Rehabilitation

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[11] *Economic Problems of Modern India*, vol. II, Ed. by Radhakamal Mukerjee and H. L. Dey, p. 181.

[12] A. J. B. in the *Bulletin of International Affairs*, Jan. 9, 1943.

Administration (UNRRA) should include the investigation of such eco-agricultural problems. One of the recommendations of the United Nations Conference is that each nation undertake to develop policies of settlement including (1) the type of farming systems to be established, (2) the scale of working by plantations, small holdings, or cooperative organization of areas for production, and (3) measures to prevent speculation and exploitation. Another important recommendation is that (a) in order to help in the intranational and international migration where these are feasible (i) occupational training be provided, (ii) labor bureaus be set up where necessary, (iii) transportation, communication, housing, sanitation, health, and other public facilities necessary to effective settlement be provided by the country receiving the migrants, (iv) steps be taken to provide for the economic security of migrants; and (b) where emigration is possible, an international organization support arrangements to provide adequate safeguards for the settlers and the countries concerned and facilitate the movement by other appropriate means. Those settlers should be selected who are most fit for agricultural colonization. It should finally be the task of an international authority to regulate their movement and distribution on an international scale. For this we have one or two precedents, e.g., the exchange of populations between Turkey and Greece under the auspices of the League of Nations after World War I. About one million and three quarters of both peoples were moved. Another example is the resettlement of the Armenians, also organized by the League of Nations.

After World War II the prerequisites for redistribution of population and land utilization on a scientific basis should be that the color bar disappear and that the significance of political boundaries be reduced to a minimum. An international migration code with universally compulsory methods of selection, which would not differentiate between races, should also be adopted for planned pioneer settlement. In the case of Asiatic subsistence farmers who would settle in the pioneer lands, substantial capital investments for planned railway development and supply of social services will not be required as a precondition of colonization. For the Asiatics, unreclaimed land is for potential subsistence and arable land is food. With European colonists land is, on the contrary, as Isaiah Bowman aptly observes, merely one factor in the complicated problem of keeping up a standard of living on the land so as not to sink farmers to the level of peasants, and of balancing the benefits of total production, city and country, through the intricate mechanism of an industrial society.[13]

The European colonist, whether in North America, Argentina, or Australia, is a farmer. The Asiatic colonist is a peasant. He belongs to the land. No title is more accurately given. In the West, to belong to the land means to become a serf or a slave. As the European farmer has migrated to the New World, he has cared only for what his land would buy for him. He has not scrupled to dissipate his land capital, his soil, grassland, and timber resources for his profit. It is often by exporting the assets of the land to foreign markets that he has kept up his standard of living. At the beginning of his colonization, he has had no scruples even about displacing, demoralizing, and destroying the former inhabitants of the land. With Asiatic agricultural colonists, soils will be less likely to be depleted, for soils are a part and parcel of the religion of ancestor worship and the tradition of good neighborliness that have to be bequeathed to the generations unborn.

The discovery by the Asiatic agriculturists of an arranged succession of legumes with cereals, and the use of night soil are perhaps more significant for humanity, of which two thirds are represented by the peasantry, than the discovery, for instance, of steam power. Another significant Asiatic discovery is the development of the village community, which nourishes and sometimes enforces mutual cooperation in agricultural operations, irrigation, or even jungle clearing. In the colonization of the Outer Islands of the Netherlands East Indies, under the auspices of the Dutch administration, the Javanese *desam* or village cooperative has greatly facilitated work in the thick virgin jungle, and has become indeed the working foundation of the pioneer settlement. Planned Asiatic settlement will also raise no problems of native segregation, alcoholism, slave-raiding, or peonage. There will be racial admixtures as in the U.S.S.R , and differently in South Africa, both of which can easily support larger populations and have already mixed groups; or in the Pacific, as between the Malays and the Dutch and between the Chinese and the natives in the Dutch East Indies, or between the Chinese and the British in Australia. In the last case, the mixed families are found to be even better looked after than in the corresponding stratum of British settlers. Crossbreeds in the Netherlands East Indies are also intelligent and temperamentally sound, and may well become assets to the region. There will be economic easement in China and India as a result of migration, leading to a fuller deployment of social and economic forces; while in the new lands, the development of diversified farming and light industries will be very greatly aided by the settlement of Asiatic subsistence farmers, which will indirectly raise the standard of living and efficiency of the natives.

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[13] Address of the Retiring President, American Association for the Advancement of Science, September 15, 1944.

From Plantation Economy to Small Farming and Self-sufficiency

Excluding India for the moment, one of the serious economic drawbacks of the rest of the British Colonial Empire now comprising about 60,000,000 persons and distributed very thinly over 2,250,000 square miles of land (with 42,000,000 in Africa and 18,000,000 more in Ceylon, Malaya, and the West Indies), is its too great dependence upon one or two staple crops, the world demand for which is liable to fluctuations, with serious repercussions upon the economy of each colony.[14] Throughout the colonies the concentration upon a few commercial crops and industrial raw materials has led to sharp changes in the purchasing power and standard of living, especially where the colony depends upon imports for the necessities of life. Between 1926 and 1936, the colonial areas showed their characteristic vulnerability to the economic storms. Their chief commodity prices fell in the following ratios: rubber from 79 to 3; silk 7 to 1; tin 70 to 19; copper 21 to 5; cotton 22 to 5; sugar 3.5 to 0.6; cocoanuts 25 to 7.5; and rice 7 to 2.[15] Professor Hancock thus summarizes the causes which, during the fourth decade of the 20th century, have led to the deterioration of the economic position of such raw material areas: "It is the nations most backward in industrialization which are the first to be brought under the harrow. . . . Revolutions in agricultural technique and the competition of new producing areas have multiplied supply, while at the same time the slackening of population growth in the old consuming centers and lack of purchasing power in centers of potential new consumption have prevented a corresponding increase of demand. The policy of Governments did not create these maladjustments. But neither did it make any serious attempt to correct them." [16]

Even in Australia the economic structure of an essentially urbanized community is so lop-sided that "seasons, soil and sales form the trinity" here, affecting the present front of settlement and future advance, with most aggressive economic control by those who are not engaged directly in developing agriculture.[17] The evils are much more serious in one-staple or two-staple colonies, where land utilization and settlement are entirely governed by the price mechanisms of world commerce, whatever may be its social consequences.

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[14] The disadvantages of monoculture are stressed in *The Colonial Problem*, pp. 156–57.

[15] *Foreign Affairs*, April, 1942. Lasker: *Peoples of Southeast Asia*, p. 63.

[16] Vide *Survey of British Commonwealth Affairs*, Vol. II, Problems of Economic Policy, 1918–39, Part II, p. 319.

[17] Wadham and Wood: *Land Utilization in Australia*, p. 336.

In all colonies of the Great Powers the need of a planned economic policy is, indeed, strongly felt. The chief features of this policy are the encouragement of subsistence agriculture, the development of secondary industries, the organization of social services, and the conservation of soil, water, and forests that have been severely depleted by the system of monoculture. The implementing of such an economic policy will largely depend upon the economic habits and education of the natives. But there is no doubt that the entry of Indian or Chinese agriculturists as small-scale subsistence farmers depending upon family labor will speed up the change from the European estate-system to subsistence agriculture. Whether in East Africa or in the Pacific, in the Guianas or the West Indies, the thrift, sturdiness, and perseverance of Asiatic intensive farmers have been stimulating examples to the various native populations who have also been taught by them in many areas the use of the plough, well irrigation, and rural handicrafts subsidiary to agriculture. In respect of the rudiments of new crafts such as weaving, pottery, and metal working, Lord Hailey observes: "The Africans could learn more readily from association with Indian craftsmen. If the scope of the contacts with Indian settlers could be somewhat modified and become less commercial and more industrial, there is probably no country from which Africa could for the moment learn more." [18]

Asiatic settlement may contribute toward the creation of a new economic structure and purchasing power in what are now raw material areas, that might materially increase the opportunities of growth in the already industrialized zones of the earth. The industrial millions of Europe and America will find more work and wealth for themselves as the pioneer regions gradually develop from the plantation system into a more diversified economy with improvement of the standard of living. An economic, social, and biological give-and-take is much easier between the Asiatics and the natives. Thus it is the Asiatic colonists who would be more helpful than the European planters and traders in ushering in the next stage of economic development in pioneer or semi-pioneer lands from monoculture and the plantation stage.

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[18] *An African Survey*, p. 1427.

The present global war has stressed the need of developing global planning of resources, production, and standards of living of the peoples. Mackinder remarks: "If our civilisation is not to go down in blind internecine conflict, there must be a development of world planning out of regional planning, just as regional planning has come out of town planning. The statesman of the future *must know something of the geographical natural* regions, if he is to build for stability. The peaceful re-adjustment of treaties to differential growth will postulate an informed and delicate geographical judgment."

The present writer has suggested certain principles of economic regionalism that are applicable to international intercourse in the interests of balanced growth of immature regions and world productivity.[19] Tropical and subtropical economy must be saved from the prevalent types of exploitation by which the European tends to render uniform the varied natural regions of the globe. Native customs and usages, land tenures, and forms of rural settlement, which are adjusted to ecological conditions and vital economic needs in the tropical world, are now interfered with and obliterated; and a substitution of the conceptions of European land law turns out to be economically disadvantageous and socially perilous. Native agriculture. is undermined or superseded by monoculture, and native arts and crafts by European products. Land becomes concentrated in the hands of European planters and *entrepreneurs*, and labor regimented in estates and factories, and herded in inadequate reservations. The bonds of tribal solidarity and family integrity are also broken, and the native peoples left without any social control or morale. Such an obliterating, disruptive process is discernible not merely among the primitive tribal communities in Africa and Asia, but also among the more cultured peoples like the Indians and Javanese. The encroachment of individualistic law and tenures; the purchase and sale of land; the usurpation of collective rights in grazing lands and forests and in irrigation; and, generally, the disintegration of village collectivism have brought about overpopulation and a weaning away of peasants from the shelter of their *dissa* (or *desa* — i.e., village) structure in Java or the coparcenary village community in India.[20] All this requires an altogether different approach to the present problems of disintegration of village structure and agriculture, which has to feed the increasing millions.

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[19] *Regional Sociology*, Chapter XII.

The economy and social organization of the less advanced tropical peoples have been more seriously dislocated. Colonial society all over Southeast Asia is characterized by a dual economy and structure represented by an oligarchy of European or sometimes Chinese mine and plantation managers, merchants, and officials ruling over the native populations, comprising chiefly small farmers and laborers. Nor does the oligarchy spend its profits in the colony or dependency, but remits both profits and dividends of the capital invested to foreign countries. Without some kind of control by a regional or international authority of the investment of capital in the economically less advanced countries, their rights and welfare cannot be safeguarded.

It is the science of social ecology and regional planning that should govern the methods of land utilization and the development of a balanced tropical economy. Regional planning also indicates lines of progressive development for backward regions through the importation of plants, animals, and racial stocks from similar climatic regions. The future migrations of the world should be directed by human ecology to suitable regions, to pioneer lands as nearly as possible similar to those from which the migrants come. As ecology suggests the best type of people for certain empty lands, as anthropology finds out how far customs, usages, and institutions appropriate for one type of environment will adapt themselves to another, so regional economics indicates methods of land utilization and exploitation of resources appropriate for the region and its potential capacity for the population of a given type.

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[20] See *The Dutch Indies*, by Amry Vandenbosh, Univ. of Cal. Press, 1941, pp. 245–246. For India see *Village Communities in India*, by B. H. Baden-Powell, London, 1908.

The root idea of regional planning is to restore the natural equilibrium of race and region that has been disturbed in the tropical and subtropical areas during the last four centuries by the profit-making attitude, economy, and administration of the European colonial powers. One of its major tasks is to ascertain which agricultural colonists and settlers accustomed to one type of climate will be able to adapt themselves to another. Peoples show differential capacities of acclimatization. The Nordic and the Japanese people, both of whom are great colonizers, show in particular incapacity to establish themselves save within comparatively closely restricted climatic limits. On the other hand, it appears that the Chinese are better able than either white or black peoples to withstand the greater extremes of climate. A recent writer has given the following reasons for this: "The vast ranges of temperature and also of humidity which are found in the great continental masses of Eastern Asia have bred people with the necessary physical conditions to tolerate them, so that the yellow hue of the typical Chinese is due to a thicker layer of fat beneath the cutis, or true skin, enabling him to meet the swift changes of weather. In addition to this advantage, in the remote past he lived on the edge of those vast areas which were subject to glaciation." [21] The above biological advantage is also coupled with the acquired characteristics of the Chinese, born of rigorous environment and economic pressure, viz., their tough fibre and capacity to live economically and with any kind of food.

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[21] A. G. Russell *Colour, Race and Empire*, p. 21.

The Japanese are probably connected with the Malayan peoples, a dark race which has not had the advantages derived from the alternation of periods of glaciation and tropical heat in their homeland. Their relative incapacity for acclimatization may be due to this. They have proved less capable of colonization and settlement in Manchuria and Asiatic Siberia than the Chinese, Koreans, and Russians, while they also cannot stand the climate in Southeast Asia where there are about 16,500,000 Chinese and Indians. In Formosa, which the Japanese have occupied for fifty years, they number only 260,000, the majority of them found in the mining districts and sporadically in the plantations. The Japanese population has increased here in recent decades on an average of only some 5,000 per annum. The Japanese, unlike the Chinese or Indians, settle outside the archipelago mostly like the Europeans, adopting European dress and ways of living, and engaging themselves in wholesale trade and in the professions. Vast empty lands of the world are today controlled and coveted by the Nordics and Japanese, where they can neither toil in the field nor thrive in health and numbers.

Thus there is brought about a tremendous disbalance of population and resources in the basin of the Pacific, in one part of which millions live on 3 to 5-acre holdings and go on subnutritional and subphysiological standards; while in another, tractors, sheep, and cattle luxuriate on the open spaces and men's artificially bolstered-up standard of living is protected by government tariffs, subsidies, and bans on foreign immigration. Such an economic and social contrast is entirely incompatible with world peace. Only a balanced globe can be a happy and peaceful globe.

Global Planning of Resources

Regional planning in the Pacific or elsewhere should form the basis of global planning, and the work of regional economic councils should be dovetailed into international economic administration. Global planning for stable balance built on the foundation of regional planning will regard a White Australian Policy, a White South Africa Policy, and a policy of Oriental exclusion in the Americas as an anachronism. E. A. Gutkind has recently remarked that the effect of the superiority complex of the white man and the present color-bar excluding every race (not only Negroes but also some of the most highly cultured peoples of the world, the Indians and Chinese) will be, unless all the signs are wrong, that the non-white races may assert a color-bar of their own after the present war. Their nationalistic feelings will be screwed up to the highest pitch, and this state of mind is apt to lead to the most primitive retaliations. The U.S.S.R. among the Great Powers recognizes no color bar, and makes no distinction whatsoever in citizenship between Asiatics and Europeans among her many nationalities. It is not improbable that Soviet Russia with her characteristic lack of racial prejudice may support, as against the Occidental Powers, the cause of freedom of emigration for the Oriental peoples in their desperate struggle for life-space. "The geographical future," remarks Haushofer, the German exponent of *Geopolitik*, "will belong to the Russian-Chinese bloc."

The pivot state or Heartland of the world is, according to Mackinder, the northern part and the interior of Euro-Asia, covering the vast plain and grassland available for defense in depth for strategic retreat. The Russo-Chinese Heartland is the greatest natural fortress on the globe, manned by a garrison sufficient both in number and quality to conquer the earth.[22] Thus Asiatic exclusion may bring into operation again the "law" of the Heartland, the ultimate citadel of world power which Hitler failed to seize, but this time for the world hegemony of the Russian-Chinese combination. Already the lowland narrows of Manchuria, the steppes of Outer Mongolia, and the plains of Burma, Yunnan, and Indo-China have become land corridors of invasion and immigration engendering conflict between Asiatic and Asiatic; while the sea corridors of expansion have been the South China Sea, the Straits of Malacca, and the narrows of Micronesia. The roles of these strategic spots will be as important in Asia in this century as Gibraltar, Cape of Good Hope, Suez, Surat, Colombo, Hooghly, and Malacca were in the expansion of European sea-powers in the 18th and 19th centuries. Any possible effort at world domination by the Euro-Asiatic land powers would range the peoples of the earth against one another mainly on racial lines. For geographically, as J. F. Normano recently reminded us, "Asia is the centre of the world. Geographically Europe is her annex, Africa a subcontinent, Australia her island. . . . Historical geography seems to be favorable at present to Asia. . . . But economically also Asia is striving towards a central position in the world."[23]

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[22] Mackinder: The Round World, *Foreign Affairs*, July, 1943.

If statesmanship fails now in the West, both social injustice and misery in the East may precipitate another global war that will be more catastrophic than the present one, arousing, as it will, racial passions among the yellow, brown, black, and white peoples, and sweeping like a tornado from one section of the globe to another. True statesmanship must invent methods of international cooperation and administration of the world as a single economic community without discrimination among the white, brown, yellow, and black races and between free and subject peoples, it must revise the tariff, emigration, and population policies of the nations, which have caused a terrible shrinkage of the globe in the face of its multiplying billions, accompanied by a striking disparity in living and economic standards among the peoples. Will the effective leadership of Britain, the United States, and the U.S.S.R. be equal to these great tasks of the next half century as we leave behind the chronic wars, economic conflicts, and racial prejudices of the past? The unified world cannot survive with two standards of living and two color-schemes, white and non-white; nor as half-democratic and half-imperial, half-free and half-subject.

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[23] *Asia Between Two World Wars*, p. 79.

CHAPTER II

POPULATION AND MIGRATION IN EAST ASIA AND THE PACIFIC

Major Regions of Human Concentration and Migration

In the present century, the expansion of population in the various countries has met with consequences unknown in the past. More and more population increase brings in its wake severe and increasing economic pressure for an increasing number of peoples of the earth. Such pressure is at the same time very unequally distributed. The world's population is concentrated in four of its most productive regions where the mean density of population considerably exceeds the world average of 40 persons per square mile over any large contiguous area. These regions, Prof. C. B. Fawcett estimates, together contain about three-fourths of the world's population on little more than one-eighth of its total land area.

Regions	*Central Latitude*	*Area in millions of sq. miles*	*Population a century ago in millions*	*Present population in millions 1930*	*Percentage of increase*	*Emigration in millions*	*Percentage of emigration to present population*
Europe	50° N	2.8	240	542	125.8	60	11.0
Eastern North America	40° N	1.9	15	100	566.6	Nil.	Nil.
The Far East	35° N	1.7	400	560	40.0	12	2.1
India with Ceylon	25° N	1.0	150	350	133.3	4	1.1

If we take South and Eastern Asia together, the population there increased from about 550,000,000 in 1800 (about the same as Europe's present population) to about 1,010,000,000 today, with the world's total population at 2,125,000,000. Thus about half the human race is now confined to an area which is only 13.6 per cent of the globe land surface or about 5 per cent of the globe land surface, if the marginal and land-locked seas whence it derives its fish supplies are included.

In one century, between 1815 and 1914, Europe witnessed the emigration of 50–60 million persons of whom perhaps one-third subsequently returned. Such migration to the far corners of the globe: to the Americas, Africa, Asia, and Oceania was by far the biggest migration in the world's history. According to the estimate of Ferenczi, while the population of Europe rose from 180,000,000 to 480,000,000 between 1800 and 1930, the number of persons of European stock in the overseas countries reached 160,000,000, i.e., one-third of the population in the home countries. From the Far East (China and Japan), the volume of emigration was only about 12,000,000, the internal colonization represented by the push to Manchuria, Mongolia, and Asiatic Russia being 30,000,000. Char Yin-Yuke observes that in spite of the one thousand years' duration of Chinese emigration — a relatively long period when compared with the period of British overseas emigration — less than 2 per cent of China's population actually migrated; a very small figure compared with that of certain European countries. India showed the least relative volume of movement, only about 4,000,000. From the Atlantic seaboard of North America, there has been a steady drift westward and northwestward, but this has now overreached the optimum climatic controls of the type of land utilization.

It is clear that there are four major regions that are zones of heavy population concentration, and that from these danger spots along the land and sea corridors have started the large-scale migratory movements, which have in large or small measure shaped the course of world political and economic history in the 19th and 20th centuries. The political superiority of the European Great Powers has of course restricted both the range and influence of Oriental migration, which represents less than 2 per cent of the population in the home countries. But the effect of Chinese internal colonization in Manchuria, Mongolia, and Inner Asia, where they are about 30,000,000, and of emigration to the undeveloped monsoon and tropical lands, viz., Malaya, Siam (Thailand), Indo-China, Philippine Islands, and the Netherlands East Indies, where they are 10,500,000, has been far-reaching. Though the colonization of North America started in the second decade of the 17th century (1620), the bulk of it developed in the last century, adding an altogether new region of population concentration in a climate highly favorable for physical and mental energy and enterprise. An unprecedented increase also took place in the 19th century in India, when the population rose from about 130,000,000 at the time of the battle of Plassey (1757) to 294,000,000 at the end of the 19th century. But India is, like China, an ancient zone of human concentration. Only about 4,000,000 Indians have now settled abroad, of whom more than 3,000,000 are in the undeveloped tropical and monsoon lands of Southeast Asia. China gained much less in population, about 76,000,000 between 1810 and 1910. Japan increased her population from 33,000,000 in 1854 to 64,000,000 in 1931, almost doubling herself. Only about 2,000,000 Japanese now live outside the homeland. The increase of population in Japan, though phenomenal, was less than in India — a counterpart, in a bracing environment, of the growth in Eastern North America.

In the 20th century, the tropical monsoon lands of South America and Africa on either side of the South Atlantic might be added as two other centers of heavy human aggregation, provided that there are freedom of emigration and conquest of disease by tropical medicine and hygiene. A subregion of population aggregation that may be developed even earlier, because of its proximity to the Asiatic human reservoir and the open character of forests, is equatorial Asia and Oceania (including "manless" Australia). Java under the Dutch, who are perhaps the most efficient colonial administrators in the world, now has a population of about 46,000,000. She is already full to the brim and is spilling over. Some other islands of the Netherlands East Indies and the Pacific are also beginning to be settled by migrants. This zone can, however, support much less population than the former.

With freedom of Asiatic emigration, a vast population can settle and exploit the undeveloped tropics in both hemispheres, but the hundreds of millions here will show only vegetative growth, and perhaps racial degeneration. The equatorial population, when it reaches its normal growth or density from Brazil to Queensland, will, however, surely balance the vast population of the temperate belts from the Middle West in the United States to Manchuria; and the two zones will be separated by the girdle of empty spaces and deserts which, it is estimated, cover about a quarter of the land surface of the globe, and which will yet continue to operate as the Great Divide between the culture of its major communities. Only with the population growth and occupancy of the unused tropical and subtropical lands could a stable global balance of numbers and resources — and hence global peace — be established. Meanwhile, as the equatorial jungle and disease prevent the invasion of the plough, and the one thousand millions in India and the Far East do not or cannot migrate, the global disbalance of population will be aggravated by population increase; and with it, both misery and conflict will spread more widely. So long as Oriental exclusion is a settled policy in most of the unoccupied pioneer regions of the globe, the zone of heaviest population concentration will remain India and the Far East, where poverty and low standards of living will provoke constant economic and political antagonism. As Harold Butler observes: "By the state of the world's economic health, its tranquility is largely determined." [1]

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[1] *The Lost Peace*, p. 192.

The following table indicates the agricultural consequence of the tremendous concentration of humanity in South and Eastern Asia.

Country	*Population in Millions in 1935*	*Area in Thousands of Sq. Miles*	*Density per Sq. Mile*	*Density per Sq. Mile of Crop Area*
India	375	1,808	207	794
China	450	4,314	104	1,307
Japan	69	146	453	2,878
Siam (Thailand)	16	200	60	903
Indo-China	23	285	75	724
Java and Madura	41	51	816	1,290
Korea	23	86	248	1,253
Formosa	5	13	340	1,491
Philippines	10	114	107	207
	1,012	7,017		
World Total	2,147	51,324		

Population versus *Subsistence in India*

There are few countries in the world like India, where an uninterrupted increase of population has now encountered a bottleneck, which has caused a serious and aggravating food crisis. At the beginning of the 17th century, India's population stood roughly at 100,000,000. By the middle of the 18th century, it increased to about 130,000,000. A century later, 150,000,000 were recorded in 1850. The growth was accelerated in the 19th century by improvement in the means of communication and by irrigation, which checked the severity of famines. Between 1800 and 1900, population increased by about 150,000,000 in spite of the visitation of about 30 famines, which killed off 32,400,000 of the population. In 1901, the population stood at 294,000,000 and in 1931 at 353,000,000. Today it has reached the figure of 400,000,000.

The 19th century saw a vast extension of the agricultural front in India. The expansion of agriculture has been particularly phenomenal throughout Northern India. In many districts of the Ganges Valley, densities of population and cultivation have reached the world's highest recorded figures. In Eastern Bengal, 4,000 persons per square mile are not unknown, while the percentage of cultivated to cultivable area exceeds 95 in some districts.

The race between population and food supply in India has been neck-and-neck since the beginning of the 20th century; but since 1937–38, food production has been outstripped by population growth.

From the year 1930–31, the margin between food supply and population began steadily to decrease, until in 1937–38 food production was less by 15 per cent and food supply available for consumption by 7 per cent, as compared with the population growth since 1910–15. This is brought out in the following table:

INDEX NUMBERS OF VARIATION OF POPULATION AND FOOD SUPPLY IN INDIA

Year	*Population*	*Food Production (weighted)*	*Food Supply Available for Consumption (unweighted)*	*Excess or Deficit of Food Supply Index in Relation to Population Index*
Average of 5 years 1910–11 to 1914–15 (base)	100	100	100	...
1915–16	103	129	125	+22
1916–17	104	135	126	+22
1917–18	104	130	122	+18
1918–19	105	91	87	—18
1919–20	100	130	113	+13
1920–21	99	99	99	0
1921–22	100	127	120	+20
1922–23	101	144	125	+24
1923–24	101	129	109	+ 8
1924–25	101	121	103	+ 2
1925–26	101	121	113	+12
1926–27	102	126	117	+15
1927–28	102	117	111	+ 9
1928–29	103	118	120	+17
1929 30	104	123	122	+18
1930–31	107	126	123	+16
1931–32	114	126	122	+ 8
1932–33	117	124	123	+ 6
1933–34	118	123	122	+ 4

Year	*Population*	*Food Production (weighted)*	*Food Supply Available for Consumption (unweighted)*	*Excess or Deficit of Food Supply Index in Relation to Population Index*
Average of 5 years 1910–11 to 1914–15 (base)				
1934–35	120	125	123	+ 3
1935–36	121	115	122	+ 1
1936–37	123	123	128	+ 5
1937–38	125	110	118	− 7

N.B. — Weights are assigned according to protein values. Food supply available for consumption is computed after deducting exports, seeds, amounting roughly to one million tons per every 200 million acres of food grains and ten per cent wastage, and adding imports of sugar and cereals.

India's Food Shortage

In the United States, Taylor first calculated the population capacity of that country. The aggregate food production was estimated and the food requirements of the entire population also calculated on the basis of minimum physiological requirements. In India, the statistics of agricultural production are not accurate, while the estimates of food available from milk, fishes, etc., have to be crude in the absence of any reliable data. Within such limitations we have adopted Taylor's methods, while at the same time using Lusk's coefficients of comparison of the food requirements of children with those of an average man or a woman for estimating the total "man value" of the Indian population. On the assumption that the daily caloric requirements of the average Indian are 2,800 calories, which allows for 200 calories to be wasted in the kitchen and at the table (or on the floor), India has now fallen short of food for 48,000,000 of her "average men," i.e., 13 per cent of the population.

The shortage in the food supply will be evident from the following figures:

India's population in 1935	377 millions
India's food needs	321.5 billion calories
India's food supply	280.4 " "
India's food shortage	41.4 " "

Number of the foodless on the assumption that the rest of the population obtained their minimum physiological requirements	48 millions or 13% of the population

For China's total population of approximately 425,000,000, Professor Chiao has estimated that if the food requirements of the rest of the population were fully met, 10 per cent would starve. He works on the assumption that each Chinese adult male requires 3,295 calories.

Since the beginning of the war, the food position of India has further deteriorated as a result of the cessation of rice imports averaging 2,400,000 tons annually from Burma, Thailand, and Indo-China, and the export of foodstuffs from India for the armies abroad.

India's normal rice production, excluding that of Burma, is about 26,440,000 tons, whereas the current year's production is 24,500,000 tons. If to this deficit we add the rice imports from Burma, Thailand, and Indo-China averaging 2,400,000 tons, the total rice deficit in the current year would be 4,300,000 tons, excluding the requirements of Ceylon which depends solely on India. Of this deficit of 4,300,000 tons, only 1,000,000 tons, it is anticipated, will be wiped out as a result of the food drive. The normal production of wheat has ranged around 10,000,000 tons in recent years. This year's production exceeds that figure by about 100,000 tons. The export of wheat in 1941–42 was about 160,000 tons, and of wheat flour 82,000 tons, 455,000 tons representing the total export of all foodstuffs. If we take the estimated additional wartime demand to be 500,000 tons, India's net wheat deficit amounts to 642,000 tons. India was deficient in 1943 in her food supply by about 4,000,000 tons, i.e., for about 70,000,000 out of 400,000,000 persons. Actually, of course, what happens is not that 16.15% of the population have no food at all, but that a larger percentage has not enough to eat. The chronic underfeeding of *at least one-third of the population* is at the root of India's low standard of health and inefficiency in every field.

Difficulties in Improving Agriculture

The obvious method of mitigating or eliminating the chronic food shortage is to improve the methods of cultivation. It is hardly realized in the country to what extent an excessive population pressure prevents this improvement. Because of the increase of population and overcrowding on the land, the proportion of uneconomic or undersized holdings has been on the increase, preventing the adoption of improved agricultural techniques, and leading to the abolition of fallowing and hence to soil exhaustion.

In the major provinces of India, the proportion of uneconomic holdings is very high. In Bengal, the percentage of families holding two acres or less is 41.8, and the percentage holding between 2 and 4 acres is 20.6. In Bengal, Bihar, United Provinces, and Madras, the considerable majority of the holdings has become undersized. In Madras, 74% of the *Ryotwari* (tenants') holdings have an average area of 2.4 acres. In Bombay, 50 per cent of registered holders of land cultivate holdings of less than 5 acres. For the whole of India it may be estimated that 60% of the cultivators own holdings of less than 5 acres each, which are the minimum necessary for maintaining a peasant's family. The percentages of cultivators having holdings of below 5 acres as found in the Provincial Banking and other enquiries are: Madras, United Provinces, and the Punjab, 70 per cent; Central Provinces, 68 per cent; Bombay, 50 per cent. Increase of population has led not only to a continuous fractionalization but also to greater scatteredness in the holdings, as a result of the operation of the law of inheritance and rural customs. All this makes it impossible for the average cultivator to buy improved ploughs or better cattle, construct wells, or even to adopt intensive farming. In the United Provinces, Bihar, and Bengal, even the double-cropped area has diminished during the last two decades. In the United Provinces, the double-cropped area declined by as much as about 6 *lakh* acres, i.e., 600,000.

The decline of double-cropping in India has not drawn the attention of the Agricultural Department it deserves. Many plots of land that were yielding two or three harvests within a year no longer do so. Since the average holding has become smaller, subsistence holders are compelled to discard the practice of fallowing which formerly preserved the soil from exhaustion, especially in areas which grow the more exhausting jute, sugar-cane, or cotton crops. In the absence of chemical fertilizers or cow dung (that is burnt because of the scarcity of fuel), fallowing is the chief method that leads to the renovation of fertility through the natural recuperative forces of the soil. Where fallowing is excluded, the cultivator finds it necessary to forego double cropping for the maintenance of soil fertility. The smaller the size of the holding because of population pressure, the less often can it be given the much-needed rest. Thus the cultivator responds to the law of diminishing returns by curtailing his double-cropping although this means a reduction in his standard of living and dietary.

Expansion of Inferior Food Grains

There is another way in which the present population pressure has led to the deterioration of the food position in India. Small insolvent farmers can hardly afford to grow the superior cereals such as wheat and rice, which require irrigation and manuring. Thus wheat-growers cultivate wheat with barley and gram or turn to growing barley, bajra, and jowar, which also become more important in the dietary. In large parts of Northern India, wheat is completely ousted from the dietary of the poorer sections of the population and rice also gives way to lobia, kodo, and mandua. Quinquennial averages of crop production in

India from 1910 to 1938 also show that the production of rice rose only by 1 per cent and that of wheat declined by 19.8 per cent, while production of jowar and barley increased respectively by 41.3 and 60 per cent.

While wheat is replaced by barley, bajra, kura, and jowar, as the case may be, rice is also superseded by kodo and china or sweet potatoes in the heavily populated rice-growing areas. We thus see that the food position has deteriorated in India both with reference to the relative proportion of food production to mouths to feed and also with reference to the nutritive quality of the cereals.

In most parts of Northern India, there is a period of scarcity just before the harvests when large sections of the population live on short rations. Thus a chronic food deficit is aggravated in certain definite seasons of the year, and an agricultural and nutritional survey should differentiate between chronic and seasonal hunger or malnutrition.

§ *Diet, People, and Land Use*

India may be divided into three distinct zones with respect to the consumption of cereals and intake of calories per capita per diem, as shown below:

FOOD REGIONS OF INDIA

I. Region of lowest bodily condition and intake of food-calories: Bengal, Assam, Bihar, Eastern U. P., Orissa, and Madras	Percentage of consumption of cereals: *			Calories: ‡	Average body weight of group:
	Bengal:	Rice	100	2000 to 2500	100 to 120 lbs.
	Bihar:	Rice	80		
		Wheat	10		
		Maize	10		
	Madras:	Rice	30		
		Ragi	70		
Provinces		Rice	47	2500 to 3000	120 to 150 lbs.
		Wheat	36		
		Jowar	17		

* Based on family budgets of working classes collected by Government and non-official agencies.

‡ Based on the results of various investigators in dietetics in the different Provinces.

FOOD REGIONS OF INDIA

II. Region of medium bodily condition and intake of food-calories: Bombay, Western A. P., United Provinces, and Central	Bombay:				
		Wheat	50		
		Rice	40		
		Bajra	8		
		Jowar	2		
	Central Provinces:				
	Western U. P.:				
		Wheat	60		
		Barley	20		
		Rice	10		
		Bajra	5		
		Jowar	5		
III. Region of highest bodily condition and intake of food-calories: Punjab and the North-western Frontier Province	Punjab and the N. W. F. P.				
		Wheat	90		
		Maize	5	3000 to	150 to
		Rice	5	3500	170 lbs.

The explanation of the differences in physiological condition and dietary are complex and cannot be discussed in this chapter. There is a mutual adaptation of climate, dietary, and bodily size and activity of the peoples of different provinces in India. Marked differences in climate and in the size, weight, and activity of the body, and the greater prevalence of short rations in the regions of population pressure that are grouped under I above, easily explain the contrasts between the intake of the Pathans, Punjabis, Rajputs, and Mahrattas, stalwart and strong peoples of the north and west, and that of the Bengalees, Uriyas, and Madrassis, puny, weak, and supine. The improvement of agriculture and nutrition can bridge this gulf in some measure but not wholly. Rice-growing regions are more crowded than the wheat-growing regions of India; and as population pressure increased in Region I, the defect of the dietary would be aggravated, since millions of persons would adapt themselves at a low level of vitality to inadequate food, scarcely realizing that they were undernourished. The smaller percentage of cropped area per capita, the larger burden of superfluous cattle population, and a smaller percentage of land area available for reclamation and settlement make agricultural and nutritional improvement more and more difficult, should population further multiply in the rice tracts of India. The following table of the uses of land in the different provinces indicates this:

Land Utilization in Different Provinces

	Coefficient of over-population	*Net area sown, million acres*	*Area sown more than once*	*Culturable waste, million acres*	*Cattle per 100 acres of crop area*	*Forest, Sq. miles*		*Per cent of land area under forest*
						Usable	*Non-usable or in-accessible*	
Bengal	> 1	247	49	5.7	102	8972	3466	16
Bihar	> 1	19.3	4.4	51	83	8802	747	13.8
Orissa		6.4	0.5	3.5		1519	2159	11.2
United Provinces	> 1	36	8.6	9.9	90	5412	11960	16.3
Madras	> 1	32	4.8	10.5	73	16573	16694	23.2
Punjab	< 1	27.2	4.2	4.1	58	1872	4120	4.1
Central Provinces and Berar	< 1	24.5	2.7	13.9	51	33521	14022	47.5
Bombay	< 1	28.7	0.9	0.8	35	7840	5306	10.6
Assam	...	6.2	0.7	18.8	...	+	21307	31.6
Sind	...	51	0.5	5.8	51	1154	...	2.4

The coefficient of overpopulation is worked out on the assumption that five acres is a subsistence holding for the average family in India numbering 4.2 persons. Thus one acre of land per capita is regarded as indispensable for the support of man in agriculture. Dividing one acre by the crop area per capita of each province we get its coefficient of overpopulation. Intensive farming is indicated in column 3. Twenty-five cattle per 100 acres of sown area will meet the requirements of farming and rural transport in India, if we adopt the standard of Egypt where conditions are similar to those over large parts of India. Cattle population in excess of 25 per 100 acres of sown area should be regarded as uneconomical and superfluous, and could safely be reduced. For the needs of agriculture, 20% of the land area is usually considered as a proper amount of forest. The areas of usable and non-usable forests are roughly reckoned by Mr. S. H. Howard.

It has taken well-nigh half a century to introduce improved varieties of wheat in only about one-sixth of the area under that crop and in only one-fortieth of the area under rice. In several provinces the average yield of rice and wheat has either remained unchanged or actually diminished. Indian agricultural yields are much lower than those of China and Japan, as the following table would show:

CROP YIELDS IN DIFFERENT COUNTRIES
(*Lb. per acre*)

	India	*China*	*Japan*	*U. S. A.*	*World yield*
Rice	988	2,433	3,070	1,680	1,440
Wheat	811	989	1,350	990	840

A systematic propaganda of crop planning and improvement with emphasis on nutritive value and output might improve the nutrition of the Indian agriculturists, provided that food production and population do not increase at the same rate. A progressive, planned agricultural and nutritional program popularized on a scale much wider than at present is the case, might double all food crop yields in India, and wipe out the food deficit. Efforts in this direction must also take account of the major differences between Indian and European agriculture in respect of the scattered and tiny holdings, the burden of indebtedness, the lack of marketing facilities, the prejudice against the use of organic waste and human excrements, and the periodic idleness of the agricultural population. As decades have passed, unemployment has increased in the country.

UNEMPLOYMENT IN INDIA

Year	*Number of able-bodied adult males between 10 and 60 (in millions)*	*Number of economic inactives among them (in millions)*	*Percentage of unemployment*
1901	103	7	7.1
1911	110	8	7.6
1921	112	11	10.3
1931	124	17	14.2

In this table, the female population has been excluded from both the employable and the working groups because of the inaccuracy of the census returns in this respect. Women are engaged in agricultural operations spasmodically, and there is a general desire to discount their work. The number of unemployed among the male population has just doubled. It is well known that there is considerable underemployment both in agriculture and small industries in the country. For a period of about 3 months in a year, workers on the land are unemployed. It may be estimated that of those who depend on the land, the agricultural workers, comprising 30,000,000 persons, are idle for 3 months of the year. Of the 42,000,000 cultivating owners and tenant cultivators, 60 per cent, i.e., 25,000,000, work on undersized holdings and are also unoccupied seasonally. Thus 55,000,000 out of 154,000,000 workers live in idleness for 2 to 5 months in different parts of India. Thirty per cent of India's gainfully employed persons are seasonally unemployed, not calculating the idleness or semi-idleness of workers engaged in transport, trade, and industry, which agricultural unemployment brings in its train.

Planned Reclamation and Colonization

Large-scale planned migration and agricultural settlement in the unused or inadequately used tracts in Assam, the Central Provinces, the Punjab, Madras, and Sind will materially improve food production in India under the stimulus of an unremitting population pressure. But provincial jealousy and exclusiveness stand in the way of smooth and peaceful colonization. Assam contains 8,800,000 acres of "culturable waste other than fallow," the Central Provinces and the Punjab 14,000,000 acres each, Madras 10,000,000 acres, and Sind 5,800,000 acres. These culturable waste lands have to be surveyed carefully for an all-India program of land colonization and settlement formulated and implemented by the Center, directing the surplus population from the overcrowded tracts to virgin areas. The following table indicates roughly the land utilization of the country.

Uses of the Land in India

	Percentage
1. Area under crops	42
2. Current fallow	10
3. Forests	13
4. Unavailable for agriculture	18
5. Cultivable waste	17

Forests cannot suffer any further diminution as these are indispensable for protecting the fertility of the land and water-supply and preventing soil erosion. It is only some 110,000,000 acres of culturable waste that have to be considered for projects of land reclamation, engineering, and irrigation. Irrigation, dry farming, and vernalization might extend the agricultural front in the Punjab and Northwest Frontier Provinces and improve the wheat output of India. But a large extension of the rice area cannot be looked for. Only the Brahmaputra valley, which is fast filling up through the colonization of trekkers from Northern and Eastern Bengal already numbering more than half a lakh (i.e., 50,000), can show a substantial increase of rice production. On the whole, it is from an increase in yields rather than from an extension of rice acreage that the chronic food deficit of about 250,000,000 rice-eaters of India can be met in the future.

Deterioration of the Rice Position

The following table derived from Wickizer and Bennett's "Rice Economy of Monsoon Asia" shows the continuous deterioration of the rice position in the whole of India in relation to population increase.

Rice Production and Consumption in India

Years	*Production*	*Imports*	*Exports*	*Available supplies*	*Population (millions)*	*Per Capita utilization (kilograms)*
	(In terms of cleaned rice million metric tons)					
1916–20	28.11	1.20	.34	28.97	308.2	94
1921–25	26.67	.89	.29	27.27	311.2	88
1926–30	25.87	1.20	.31	26.66	328.6	81
1931–35	27.13	1.48	.26	28.35	346.4	82
1936–40	25.77	1.73	.33	27.17	363.5	75

A comparison of rice yields in India and Japan between 1910 and 1940 shows the steady and serious decline of yields in India.

QUINQUENNIAL AVERAGES OF RICE YIELDS IN INDIA AND JAPAN 1910–1940
(Quintals of cleaned rice per hectare)

Period	*India*	*Japan*
1910–15	10.1	22.8
1916–20	10.1	24.7
1921–25	9.5	24.8
1926–30	9.4	25.0
1931–35	9.5	25.3
1936–40	8.8	27.1

It is only in Japan among the countries in monsoon Asia that rice yields have improved due to the systematic efforts of the Government. In the five major rice-eating provinces of India, the quantitative inadequacy of food supply has been intensified during the last three decades by the diminution of yields in paddy lands and the rapid multiplication of population. The physiographic decline of the rice tracts of the riverine regions, resulting from the gradual maturity of the deltas and artificial obstruction of the natural spill and scour, are also responsible for a decrease in rice production, while the silt-deposition and fertilization have ceased over extensive rice tracts in India. Rice yields in the inundated districts are much larger than in districts which suffer from the red water famine or obtain water by artificial irrigation. The burning of cow dung and the break-up of appropriate crop rotations by the introduction of cash crops have also led to the decline of soil fertility. The following table would show the trends of rice production in relation to population increase in the five major rice-eating provinces of India.

VARIATIONS IN THE RICE AREA OF THE MAJOR RICE-CONSUMING PROVINCES OF INDIA (*in million acres*)

	1907–12	*1921–26*	*1933–38*	*1938–39*	*1939–40*
Bengal	20.4	21.18	21.5	21.99	22.29
Bihar and Orissa	16.8	14.63	14.2	14.7	14.6
Madras	10.4	11.06	10.5	9.84	9.61
United Provinces	6.02	7.06	6.66	5.33	7.67
Assam	4.38	4.6	5.1	. . .	5.04

VARIATIONS IN THE RICE PRODUCTION OF MAJOR RICE-CONSUMING PROVINCES OF INDIA (*in million tons*)

	1910–15	*1915–20*	*1920–25*	*1925–30*	*1930–35*	*1935–40*	*Percentage increase or decrease*
Bengal	10.5	8.0	8.3	8.0	9.0	8.4	− 20.0
Bihar and Orissa	7.25	7.7	5.9	5.1	4.9	4.3	− 40.0
Madras	4.4	5.2	5.0	5.1	5.3	4.6	+ 4.5
United Provinces	1.8	2.3	2.06	1.85	1.74	2.1	+16.6
Assam	1.55	1.5	1.46	1.46	1.54	1.7	+ 9.7

INCREASE OF POPULATION OF THE PROVINCES (*in millions*)

	1911	*1921*	*1931*	*1941*	*Percentage increase*
Bengal	45.4	46.7	50.1	60.3	24.7
Bihar and Orissa	34.4	33.9	37.6	45.0	23.55
Madras	39.1	40.1	44.2	49.3	26.1
United Provinces	46.8	45.3	48.4	55.0	17.5
Assam	6.5	7.4	8.6	10.2	57.0

The following table shows the continuous decline of rice production per capita during the last thirty years.

RICE PRODUCTION PER CAPITA (*in pounds*)

	1910–15	*1920–25*	*1930–35*	*1935–40*
Bengal	518	398	402.4	313.7
Bihar and Orissa	472.0	398.8	291.8	223.1
Madras	252.1	290.5	268.6	209.0
United Provinces	86.16	101.9	80.52	85.51
Assam	534.0	442.0	401.1	373.3

Rice consumption per capita must also have declined in the same proportion, but we have no reliable figures for interprovincial rice imports and exports, except for 1934–38, worked out by the Agricultural Marketing Department of the Government of India.

RICE PRODUCTION AND CONSUMPTION PER CAPITA (*in pounds*)

	Rice Production (Period 1935 40)	*Rice Consumption (Period 1934–38)*
Bengal	313.7	344
Bihar and Orissa	223.1	259 (including B. and O. Native States)
Madras	209.0	230* (including Madras Native States)
United Provinces	85.51	94
Assam	373.3	382

* For 3 years ending 1936–37.

It will be evident that while in Bengal and in Bihar and Orissa, population during the last three decades has actually increased by 24.7 per cent and 23.55 per cent, rice production has diminished by 20 per cent and 40 per cent respectively. The decline of annual rice production per capita in Bihar and Orissa by 50 per cent and in Bengal by about 40 per cent shows a serious deterioration of the agricultural and nutritional position. The famine in Bengal is not an accident of harvests, but a symptom of a long-term trend toward decrease of rice production and diminution of per capita consumption, which is intensified by the sudden spurt of population growth in that province. The same fundamental trend will gradually assert itself in all the other rice-consuming provinces as their population further expands; and this urgently calls for an over-all planning of agriculture and food for all of India.

Taking the major food-grains of British India (excluding the Native States), the total output (million tons) was 54.0 in 1930–31, 53.0 in 1939–40, and 55.2 in 1941–44. In 1939–40, more than 2,000,000 tons of food-grains were imported by India. Thus, in spite of the Grow More Food campaign, there is actual diminution of food supply, without reckoning that the population has increased on an average by about 5,000,000 every year.

Recently the Indian delegation to the Hot Springs Conference showed the deficiency of Indian food resources on the basis of a nutrition standard of 2,600 calories. The items meat, fish, and eggs were regarded as an alternative to milk.

	Ounces per day per adult (or consumption unit)		Total required in millions	
	Required for a balanced diet	*Available*	*Required*	*Available*
Cereals	16	18	48.0	55.5
Pulses	3	2.5	9.0	7.5
Sugar	2	1.8	6.0	5.3
Vegetables	6	3.0	18.0	9.0
Fruits	2	2.0	6.0	6.0
Fats and oils	1.5	0.6	4.5	1.9

	Ounces per day per adult (or consumption unit)		Total required in millions	
	Required for a balanced diet	*Available*	*Required*	*Available*
Whole milk *	8	1.5	32.0	6.3
Buttermilk		3.0		12.5
Meat, fish and eggs	2.3	0.5	6.0 to 9.0	1.5

The figures for available milk are based on existing information about the uses to which the milk supply is put. All the figures in the table should be regarded as illustrative rather than absolute. The table shows in a general way the existing trend of consumption and how this needs modification.

A minimum energy allowance of 2,600 calories for the basic Indian diet is considered by many Indian nutrition experts as inadequate. We have to work out India's food deficiency on the basis of a dietetic norm represented by 2,800 to 3,000 calories. Accepting this standard, the food deficiency of the Indian population is much greater than the table indicates.

Recent World Food Shortage

The present annual increase in the white population of the earth is estimated at about 5,000,000. The annual increase in South and East Asia, where half of mankind lives, may be estimated at 8,000,000. At the present standard of living, farming, and dietary, this consideration alone would necessitate the cultivation of 12,000,000 acres of new land every year to meet the requirements of the white peoples, and 8,000,000 acres more for the Oriental peoples. The world's cultivated area increased by about 500,000,000 acres between 1850 and 1900. Where shall we obtain another 500,000,000 acres to add to our present cultivated area of 5,250,000,000 acres,[2] in order that the development of civilized humanity may not be permanently checked by lack of food when we pass the middle of the present century? Already we are faced with the tremendous problem of the world supply of food and materials running short of its requirements, a problem which can be solved by planning the agricultural systems of the various regions of the world on an international basis. Between 1913 and 1926, the population of the countries inhabited by the white races increased by approximately 50,000,000. The approximate increase in the area of cultivated lands was, however, only about 80,000,000 acres in the same period. Thus the white races have run short of food supply to the extent of at least one-third of their requirements, representing the production of about 120,000,000 acres.

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[2] This is Easts's estimate. Woytinsky's estimate based on available agricultural statistics is about 3,972,000,000 acres.

For the five years 1909–13, the world's wheat crop was about 102,960,000 tons. The average for the quinquennium 1921–25 was also 101,800,000. Thus there was a small decrease in the total production of wheat during this period, although the yield of wheat per acre showed a remarkable improvement in the Western countries from the 'seventies of the last century to 1913. The average of the quinquennium 1926–30 was 121,200,000 tons, an increase of 18,240,000 since 1909–13. Thus we see that the supply of wheat as the representative staple of the white race actually declined in the period 1913–25, while there was an increase of 50,000,000 white people. Although during the quinquennium 1926–30, the annual wheat production of the world increased by 18,240,000 tons, due to artificial encouragement by tariffs, bounties, and quotas, the wheat consumption declined to a marked extent in every wealthy country, notably Great Britain and the United States. We must remember that the countries of Central and Eastern Europe are gradually substituting wheat for rye and maize, while among vast populations like those of India, China, and Japan there is an increasing demand for wheat imports because of the substitution of wheat for rice, millets, and other inferior cereals. The tendency will become more and more pronounced with the rising standard of living, and the demand for wheat from the teeming millions of the Orient may before long outstrip the supply. The aggregate world production of wheat was 104,000,000 tons in

1931–32, because that year there had been a sharp fall. The figure fell by 10 per cent between 1931–32 and 1934–35 and remained low, until 1937–38 when the output was 94,000,000 tons. In 1938 39 production increased to 101,000,000 tons.

The following table shows the movement of production of foodstuffs by continental groups during the years 1936–40.

INDICES OF FOOD PRODUCTION OF THE VARIOUS CONTINENTS, 1936 40

Basis 1938 — 100

	Europe (excluding USSR)	*Continental Europe*	*Asia (excluding USSR)*	*Africa*	*Oceania*	*Latin America*	*North America*
Percentage distribution average 1936–38	*35.7*	*34.9*	*17.3*	*2.4*	*2.9*	*8.7*	*18.5*
Year							
1936	95	95	100	93	99	97	92
1937	97	97	101	98	105	97	96
1938	100	100	100	100	100	100	100
1939	100	100	100	104	109	97	104
1940	93	92	98	100	96	100	108

INDICES OF WHEAT AND RICE PRODUCTION OF THE WORLD, 1936–40

(1938 — 100)

Year	*Wheat*	*Rice*	*Total cereals, sugar, and pulses*
1936–37	81	103	92
1939	94	100	100
1940	89	96	96

Population and Food Supply in Asia

As regards the relation between population and food supply in Asia, the estimate will be far less accurate, since the agricultural statistics of China, the Malay Peninsula and Archipelago, and Indo-China are scanty. The yellow and brown races living in the countries from India to Japan and numbering about 1,000,000,000 persons, now subsist on about 600,000,000 acres of cultivated land, the total area under cultivation in China and India being estimated at 281,000,000 and 298,000,000 acres respectively. Roughly speaking, between 1921 and 1931 these races increased approximately 90,000,000, to which India, China, and Japan contributed some 72,000,000. But the cultivated area in this region hardly increased more than 70,000,000 acres in the same period, of which about four-fifths represent the phenomenal agricultural expansion in the Manchurian Steppes alone. India's share of the increase was about 5,000,000 acres, China's (including Manchuria) 60,000,000 acres, Japan's 500,000, the Philippines 1,500,000, Java and Madura 1,000,000, and Indo-China 500,000. The arable land of Manchuria, one of the favored areas in the world opened for settlement relatively recently, increased by 52,000,000 acres in this decade. These increases have not mitigated the enormous pressure of population on available subsistence, even with a low standard of living among the Asiatics. Its magnitude will be realized if we remember that half the human race has run short of cultivated land to the extent of at least 20 per cent, and that, as estimated at the United Nations Conference on Food and Agriculture at Hot Springs, "three quarters of the inhabitants of Asia were living below decent health standards."

The Pioneer Zones in Asia and the Pacific

With the growth of human numbers outstripping the increase of food supply in South and Eastern Asia, there has been discerned for decades a mass movement, especially of the Chinese and Indians, to the relatively undeveloped peripheral lands. Very close to the human reservoirs of India, China, and Japan are the pioneer Southern and Northern fringes which, previous to the present war, were gradually being occupied, cultivated, and filled up by migrants.

The following table indicates the stage of agricultural exploitation of the pioneer zones in Asia.

	Crop area 1,000 sq. miles	*Percentage of crop area to total area*	*Cultivable area 1,000 sq. miles*	*Percentage of cultivable area to total area*	*Percentage of crop area to cultivable area*
Undeveloped monsoon lands in Asia					
Burma	28.75	11.0	13.26	50	22.0
British Malaya	7.41	13.4	...	...	...

	Crop area 1,000 sq. miles	*Percentage of crop area to total area*	*Cultivable area 1,000 sq. miles*	*Percentage of cultivable area to total area*	*Percentage of crop area to cultivable area*
Undeveloped monsoon lands in Asia					
Thailand	12.87	6.27	.	. .	. . .
French Indo-China	28.86	10.09	.	. .	. . .
Philippines	14.43	12.5	63.57	55	22.7
Formosa	3.12	22.6	3.9	27.8	81.2
Undeveloped tropical lands in Asia					
Ceylon	4.68	18 0	. . .	. . .	. . .
Undeveloped temperate lands in Asia					
Manchuria and Kwantung	60.06	12.9	131.04		45.8

Of the monsoon lands in Eastern Asia, Burma, Thailand, the Malay Peninsula, and the Philippine Islands are still comparatively empty. Equable climate and a soil enriched for ages by layers of humus are exceedingly favorable for agriculture, though excessive humidity, virulent malaria, and water-logging contribute to hinder the extension of cultivation in these lands. Indo-China is fast filling up, with Annam and Tonkin already developed and, indeed, crowded. Certain regions of the Philippines show serious congestion but many parts and islands are thinly settled. Only 12.5 per cent of the land is under cultivation but 15 per cent is estimated to be cultivable, against 20 per cent in Japan. If the flow of Asiatic settlers to these islands be unimpeded, some 90,000,000 of settlers could be accommodated. Java and Madura are also full and now have a dense cultivation. The other islands of the Netherlands East Indies and Borneo have vast untouched areas suitable for cultivation. The Outer Provinces of the Indies are more than 13 times larger in size than Java and Madura, although supporting a population less than half of the latter. Except in Bali and Lombok, 90 per cent of the native peasants in the Outer Provinces are shifting cultivators in the vast primeval forests. Borneo has an area of 293,496 square miles, about double the size of Japan, and a population of only 2,500,000. There are vast agricultural resources, especially in the alluvial low lands, which are left unutilized. The Chinese are, however, slowly filtering in, numbering 135,000 in Dutch Borneo, of whom 109,000 live in West Borneo. Here they are small farmers growing rice, sugar cane, cocoanuts, pepper, rubber, gambier, and vegetables. Small farming will, however, depend for its success upon measures of land reclamation, irrigation, and public hygiene. Each plantation may be the nucleus of formation of new Asiatic settlements where the farmers may be encouraged to grow rice and other staple foods for themselves during the period when work is not required in the plantation. The cultivated area is to be wrested in Borneo, Celebes, and Sumatra, which are all very thinly inhabited, from jungles, marshes, and swamps.

Since 1931 32, the Dutch administration has organized a colonization program in the Outer Islands clearing the ubiquitous jungle, opening roads, and building dams and canals. The largest settlement is in Southern Sumatra, where about 117,000 people from Java have settled. Another is near Palembang, also in Sumatra, where there are some 15,000 settlers. There are also that many in Celebes, and a new and smaller settlement in remoter Borneo. By 1940, 250,000 had left the overcrowded *kampongs* (compounds) of Java and found new homes in the Outer Islands. The new settlers are owners of the land, but are parts of a village community. A new colonist who arrives helps the one already there in the settlement with the harvest, and then in return is helped in clearing his land and building his house. Because of the communal system that operates everywhere in the peasant life of the Orient, the Javanese settlers have not required financial assistance to any great extent. The cost to the Dutch administration of settling 4,400 families in 1939 was only 200,000 *guilders*, i.e., 45 *guilders* per family.[3] The utilization by the Dutch of the indigenous village communal system for colonization has important lessons for any future experiments towards settlement in the empty spaces of Southeast Asia and the Pacific.

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[3] Vanya Oakes: Tanah Sebrang — The Land Beyond, *Asia*, November, 1944.

There are other large lands in the tropical regions of the Pacific where there are also vast open spaces ready for the plough. New Guinea, for instance, may be deemed a sub-continent with an area of 312,129 square miles. It has many thousand acres of agricultural land as fertile as any of the tropics, much of it in regions of reasonable accessibility, and almost all tropical products can be grown in one part of the country or other.[4] The same may be generally said of New Hebrides, New Caledonia, the Solomons, and other island groups. According to Karl Pelzer,[5] sugar cane, coffee, tea, cocoa, rubber, nutmeg, vanilla, bananas, tobacco, sisal, kapok, and cotton are some of the products that could be raised most widely in the Pacific and especially in Melanesia. Rice, maize, cotton, and taro could also be produced in large quantities, especially in the alluvial plains. Thus the region that produces only large quantities of copra on the plantations might benefit immensely through the immigration of Asiatic settlers. The Chinese, Javanese, Indian, and Japanese laborers have been gradually settling in the Pacific Islands, Hawaii, Fiji, Tahiti, New Caledonia, Samoa, Naura, and the Japanese Mandates, which already represent important and prosperous outposts of Asiatic colonization in the Pacific.[6]

Matsuoka, the Japanese Foreign Minister, announced in 1941 that Oceania, which is 1,200 miles from north to south and 1,000 miles from east to west, could support 600 800,000,000 persons, and must be made a place to which the Asiatic peoples could migrate. The New Hebrides alone, it is estimated, might support a million Asiatic settlers, instead of 900 whites and 40,000 natives as at present. But political obstruction has impeded agricultural colonization. Yet the Chinese are already 50,000 strong in the Pacific Islands. The Indians number about 80,000 in one island, Fiji; while there are about 233,000 Japanese living in Oceania, about 152,000 of them in Hawaii and 78,600 in the South Sea Islands (Mandated). Many islands of Melanesia can, indeed, permit settlement of Asiatic farmers without much reclamatory work and fight against diseases. The same cannot be said of tropical Ceylon, whose density is now four times heavier than that of Burma and Thailand. Ceylon would require drainage and irrigation for it to become once again the granary of Southern Asia. Manchuria is very fertile, with a climate not unlike that of Canada and an estimated population capacity of 70–75,000,000, the present population being about 34,000,000. At its highest point in 1927, the movement of Chinese migrants which came almost exclusively from the two provinces of Hopei and Shantung was, however, not large enough to furnish permanent relief from population pressure in China. As a result of the disturbed conditions in Shantung, Chinese emigration to Manchuria increased to more than a million annually between the years 1927 and 1929. As Japan established her control over Manchuria, she regulated the quota of Chinese coolies that were brought in. These numbered 986,000 in 1939. But Chinese settlement on the land seems to have been barred by the new régime, the remaining areas of arable land in Manchuria having been reserved for the Japanese colonists.[7] Both in Manchuria and Korea, the Japanese colonists are now taking possession of some of the best arable lands. Much good land in Korea is owned by Japanese landlords who lease it *to native farmers at exorbitant rates.* Of the total population of Manchuria, the Chinese now number about 31,000,000, Koreans 700,000, Japanese 230,000, and Russians (of the white race) about 50,000. As a result of soil and climatic conditions, inner colonization in the emptier lands of the Northwest and Chinese Turkestan cannot provide more than a trickle of settlers.[8] The outward thrust of Russian settlers to Siberia still continues. In consequence of the rapid mechanization of agriculture, large scale industrialism, and improvement of transport, Siberia's population capacity is much above the figure of 14,400,000 given for 1933.[9] Dudley Stamp estimates this at 75,000,000 persons. Cultivable lands alone would require 20,000,000 persons for their development, while double this number would be needed for the development of trade, transport, and manufacture.[10]

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[4] *British New Guinea:* Handbook prepared under the direction of the Historical Section of the Foreign Office, London, 1920, pp. 40–41.

[5] *Japanese Migration and Colonization* in *Limits of Land Settlement.*

[6] See my *Migrant Asia*, pp. 118–119.

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[7] *Economic Survey of the Pacific Area*, p. 26.

Oriental Emigration to the Undeveloped Monsoon and Tropical Lands

The mass migration of Chinese and Indians to the undeveloped monsoon lands is shown below: [11]

Undeveloped monsoon lands	*Total population (recent estimates)*	*Population per sq. mile*	*Number of Chinese settled*	*Number of Indians settled*
Burma	15,958,000	570	193,000	1,400,000
Malaya	5,286,000	610	2,250,000	624,000
Thailand	14,465,000	584	2,500,000	500,000
Indo-China	23,853,000	719	1,000,000	6,000
Philippine Islands	16,356,000	1,040	118,000	500
Formosa	5,212,000	3,150	4,511,000	nil.

There has been a more or less unbroken and unvarying penetration of the Chinese and Indians into these relatively unoccupied lands where, while the natives set up their villages on the fringes of primeval forests, the immigrants fell trees, lay out plantations, open up mines, and found towns. The rate at which reclamation is proceeding will be evident from the fact that in one single year, 1927, as many as 428,343 immigrants entered Burma, 515,394 entered the Malay Peninsula, 142,522 entered Thailand, and 63,888 entered Indo-China. The same year saw a movement of 303,167 to Ceylon and 45,566 to the Netherlands East Indies. This may be compared with the northern migration into Manchuria, where the number of immigrants in the same year (1927) was 1,021,042, which was about 125,000 less than the total annual movement into Burma, Malaya, Thailand, and Indo-China. The next decade saw the development of a great depression in the raw material regions, and the introduction of a restrictive policy resulting in a drastic reduction of immigration. But signs of recovery were discernible by 1937, when immigrants numbered 244,600 in Burma, 361,672 in British Malaya, 14,394 in the Netherlands East Indies, 71,394 in Indo-China, 44,143 in Thailand, and 162,552 in Ceylon. There has been also a steady emigration of Chinese, Japanese, and Koreans to Asiatic Russia and Mongolia. The number of Chinese in the Soviet Union is now close to 350,000. The Koreans come next, most of them having settled on the land and thriving by rice cultivation.[12]

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[8] *Problems of the Pacific*, 1933, pp. 129–130.

[9] Bruce Hopper: *Population Factors in Siberia*, in Bowman: *Limits of Land Settlement.*

[10] Stamp: *Asia*, p. 577.

[11] There were 24,000 Japanese in the Philippine Islands, 232,000 in Formosa, 6,485 in the Netherlands East Indies, 7,951 in Singapore, and only 570 in Burma. The Thailand figure of Indians included Burmese and Karens.

The following table would show the spill of peoples over into the under-populated equatorial jungle region.

Undeveloped Equatorial Lands	*Total population*	*Population per sq. mile*	*Number of Chinese settled*	*Number of Indians settled*
Ceylon	5,864,000	202	...	1,113,000
Netherlands East Indies	68,400,000	82	1,825,000	27,684
Borneo	3,000,000	10	250,000	1,298

On the whole, the spill over into the north is more than twice as heavy as that to the south and southeast.

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[12] *Economic Survey of the Pacific Area*, p. 23.

Regions	(*In thousands*)
Manchuria, Mongolia, and Asiatic Russia	40,000
Undeveloped monsoon lands	11,900
Undeveloped tropics	3,236
Polynesia	154
Melanesia	66
Micronesia	13

The pioneer regions in Southeast Asia now contain roughly more than 13,500,000 Chinese (and half Chinese) and 3,000,000 Indians: in all, about 17,000,000 Oriental emigrants; while in the cold temperate regions in the north, about 40,000,000 Chinese, Japanese, and Koreans have settled. Such a stream of migration is unparalleled in the world in its push and magnitude. This migration excludes the steady movement of Russians of white race in the U.S.S.R. toward the eastern territory, which has been encouraged for political reasons, one of them being the acquisition of manpower against a possible aggression by Japan. Russian colonists are being encouraged by the Soviet Government to settle in new areas in Asia through tax exemptions, which extend for collective farmers for 3 to 15 years, and for individual farmers for 5 years. Between 1800–1914, the total number of migrants to Siberia reached about 3,500,000. The Soviet efforts resulted in the migration by 1932 of 700,000 persons, excluding free or unregistered colonists, for whom there are no statistics. Between 1926 and 1933, the population of Asiatic Russia increased from about 24,000,000 to 37,000,000. The estimate of Russians in Siberia's population is about 85 per cent.[13]

The total population derived from the Far Eastern Region and now living outside it, may be estimated at less than two per cent of the home population. It is twice as numerous, both absolutely and relatively, as that from India; but like the latter, it is a very small proportion of the population increase in the Far East during the last two or three generations.[14]

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[13] Hopper: *Population Factors in Soviet Russia*, in *Limits of Land Settlement*.

[14] Prof. C. B Fawcett: *The Changing Distribution of Population*, in *Report of the British Association for the Advancement of Science*, 1937.

Discrimination against Asiatic Immigration

Within the frontiers of the Asiatic continent, several European powers have discouraged and discriminated against Asiatic immigration. Even next door to China, the Mongol People's Republic, under Soviet Russian influence, has forbidden the entry of Chinese immigrants into Outer Mongolia. In Manchuria, Chinese colonization and settlement on the land have been practically banned by the Japanese since 1935. Before the present war began, the Japanese settlers both in Korea and Manchuria had crowded the native peoples off some of the best lands. In Korea, much land is owned by Japanese landlords who rent it to the native farmers at exorbitant rates. The Japanese own and operate most of the industries, banks, and railroads in both areas. They set the price of commodities and hold a monopoly of the export trade.[15] All native labor employed in industrial concerns or in road and building construction has also been placed under rigid control and supervision of the Japanese officials. Since 1900–1902, the United States has extended Chinese exclusion measures to the Hawaiian and Philippine Islands. Japanese large-scale enterprise was threatened with expropriation in the Philippines, though only 12.5 per cent of the total land area and less than one half of the agricultural land was under cultivation. The Philippine laws have placed all immigrants on a flat quota basis and prevented the Chinese and Japanese from obtaining land for the development of plantations or for agricultural purposes. Only citizens of the Philippines and the United States may obtain 24 hectares of public land as a homestead, while corporations may acquire not more than 1,024 hectares, provided that at least 61 per cent of the capital belongs to their nationals.

Across the seas, Indo-China under French suzerainty has discouraged Chinese settlers in Indo-China, while taxes have been seven times as heavy for a Chinese coolie in Cochin China as for an Annamite. Besides, the Chinese or Indian coolie has to give guarantees when he disembarks, and pays a considerable sum when he is taken on as a laborer.[16] "Unlike the mass migration towards China, what is directed towards Indo-China," observes Virginia Thompson, "represents a restricted élite." [17] Both the guarantee and the heavy taxation prevented the poorest class from seeking entry. A few years ago, the French colonial administration followed a discriminatory policy against Chinese traders that had practically monopolized the internal trade of the region, as a result of which trade greatly suffered. The administration dealt rather harshly with Chettiar bankers (i.e., small money-lenders) from India who had lent vast sums to agriculturalists. The policy of protection for peasants in years of agricultural depression, as determined by the credit office at Saigon, involved a drastic reduction in principal and interest of the agricultural bans and a postponement of the realization of dues, which caused hardship, spread distrust and alarm, and led to a withdrawal of more than half of the Indian capital invested in Indo-China. Discrimination against the foreign national has also held good in French Oceania, which has passed severe restrictive measures against Oriental immigration.

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[15] Berreman: *The Japanization of Far Eastern Occupied Areas*, *Pacific Affairs*, June 1944.

Discrimination was formerly unknown in Thailand, which, though thinly populated, contains more than thrice the number of Chinese found in the neighboring French colony. But since 1927, a series of restrictions have come into force in that country. Fresh immigration has been made difficult on account of the levy of a fee varying from 30 to 100 *baht* for a residential permit extending to the period of one year only and of a departure fee of 5 to 20 *baht*, and the introduction of a literacy test which means the virtual exclusion of Chinese women. Various regulations have also been passed restricting Chinese business, and education.[18] Burma, which for decades was the outlet for the surplus population of Bengal and Madras, has for some time shown racial feelings manifesting themselves in a series of riots and disturbances and restrictions on immigration of the Indians and Chinese. Similarly, Malaya has since 1930 laid down immigrant quotas, drastically restricting the movement of Chinese and South Indian laborers.

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[16] Dennery: *Asia's Teeming Millions*, pp. 133–135.

[17] Virginia Thompson: *French Indo-China*, p. 168.

The Netherlands East Indies, whose vast resources lie hidden in jungle and morass, formerly followed a systematic policy of organized free immigration as far as contract laborers and free laborers in the big enterprises were concerned: shortening of the contract period, gradual reduction of penal sanctions, and an ever-improving labor legislation contributed to maintain a steady flow of Chinese and Indian labor to the rubber and pepper plantations and the mines, which enjoyed the benefits of liberal measures started half a century before.[19] According to the Netherlands law of 1910, all persons born of parents settled in the Indies are Netherlands subjects. This includes the Chinese and other non-indigenous Asiatic residents of the Indies, who were thereby assimilated to the indigenous population with respect to their legal status. But the Japanese claimed and obtained status equal to that of the Europeans. The discrimination among the different ethnic groups of the Indies population has, however, been a source of political disagreement and even resentment.[20] Besides, the Chinese in the Dutch colony are forbidden to own land. The few exceptions in the vicinity of Batavia involve land acquired by the Chinese as long as two centuries ago.[21] In 1933, an enactment was passed fixing the total number of immigrants for the purpose of permanent residence at 12,000 annually. This was equally divided among all nationalities, but for all except the Dutch and the Chinese, the maximum of 800 had been set up. Moreover, all immigrants had to satisfy the authorities of their capacity to earn a living. Chinese immigration was reduced from an annual average of 35,119 between 1925 and 1929 to 11,767 in 1938.[22] The fee required for an immigration permit was raised from 25 *guilders* to 150 *guilders*.

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[18] Chen Han-Seng: *The Present Prospect of Chinese Emigration*, in Bowman: *Limits of Land Settlement.*

[19] See De Kat Angelino: *Colonial Policy*, Vol. 1, ch. VII.

[20] See Van Asback: *Foreign Relations of the Netherlands Indies*, in *Problems of the Pacific*, 1939.

[21] See Cator: *The Economic Position of the Chinese in the Netherlands Indies*, pp. 37, 38.

It was under Anglo-Saxon and French auspices that colonies and dependencies followed exclusive policies in the past, making more and more difficult the problems of population adjustment in the Orient. The Dutch policy was liberal. Similarly in Malaya, which attracted immigrants from China and India for well-nigh 40 years, a quota system was applied in 1930 to the immigration of adult male laborers, with the object of reducing unemployment caused by the depression. Since 1938, all assisted emigration of workers to Malaya for the purpose of unskilled work has been prohibited by the Government of India. Indian labor struck work on the ground of low wages and argued that Chinese labor was getting double the wages paid to Indians. The burning question in Malaya since the depression in the rubber industry had been the wages of estate laborers and the fixation of certain minimum basic or standard rates. In 1941, an agreement between India and Ceylon was drafted in respect to the conditions of Indian emigration to Ceylon. A quota system was introduced and the conditions of domicile enunciated. These do injustice to the reclamatory work undertaken by Indian colonists for more than a hundred years; moreover, the majority of Indian laborers on the estates have been denied franchise and educated Indians have been deliberately removed from offices and establishments.

Natural Regions of Colonization

It must be pointed out that without vast schemes of land reclamation, engineering, and drainage, the undeveloped equatorial lands of Asia cannot be occupied and adequately utilized. Such schemes demand international initiative, scientific cooperation, and capital investment. It is also probable that the three Oriental non-equatorial peoples would fail to acclimatize themselves in the equatorial rain-forest regions of Asia. Here their severe struggle for existence with abundant forms of plant and insect life, which work on the land involves, would lead to high mortality, debilitation, and racial decadence. On the other hand, no race, however hardy or virile, can long withstand the climatic handicaps of the taiga and tundra of Siberia and Mongolia.

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[22] Geldaren: *The Recent Development of Economic Foreign Policy in the Netherlands East Indies*, pp. 65–66.

The principles of scientific migration and colonization are supplied by ecology. Migration of animals and plants to similar climatic areas holds the key to successful agriculture and animal husbandry in pioneer regions of settlement.

The importation of very dissimilar strains, whether of plants or animals and humans, leads to instability and degeneration. Conversely, plants, animals, or human stocks imported from similar climatic regions contribute successfully to agricultural reconstruction. Plant explorers are now scouring all possible corners of the world in search of economic plants adapted to particular purposes and lands. This applies also to some extent to the introduction of new varieties of insects and animals. The adjustment of population to resources in the world is similarly governed in large measure by the strong tendency for populations, when faced with a limited food supply in the homeland, to migrate to similar climatic regions where they meet with familiar conditions. To such new regions they bring adaptive crops and animals, agricultural methods and practices. Their food and standard of living are also adjusted to similar climatic conditions. It is in the new regions that they find space for normal expansion and optimum living conditions. Successful colonization implies a higher average expectation of life than in the homeland, where overpopulation leads to a slackening of birth rate and an increase in mortality, and keeps down both the survival rate and the average longevity.

Bowman has recently contended that populations are not mere aggregates of numbers densely peopling the earth here and lightly peopling it there, and that the rearrangement of the population of the world through the change of national boundaries would destroy human culture, purposes, or ideals. Specifically he observes that "free migration and elimination of boundary restraints would not solve any identifiable problem to distribute the annual increment of five millions of Indians in other countries. It will only weaken, confuse, and distress the rest of the world."[23] The world, however, has fast achieved such unity and interdependence that no collective purpose or ideal, which is divisive or separatist, is tenable today. Where there are vast open spaces, as in Amazonia or Australia, an exclusive policy of restricting immigration militates against the demands of world economy and productivity; it also endangers world peace through the monopoly of resources in the hands of fewer peoples, defending an artificially bolstered-up standard of living in a climate unsuitable for their manual labor, health, and numerical increase. In the world of the future, a balance of economic resources and populations has to be reckoned with. Standards of living and economic opportunities for all peoples should gradually approximate, if the world is to be saved from recurrent demographic crises and aggressions. Future statesmanship will surely have to coordinate a national with an international optimum population policy so as to bring about an equalization of national standards of living and conditions of security, and guarantee a minimum standard for all peoples. This is in fact the underlying policy behind the Atlantic Charter and the recommendations of the International Labor and Hot Springs Food Conferences of the United Nations.

Oriental settlement in new lands has brought with it new economic opportunities that have everywhere contributed toward keeping up a standard of living on the land, so as not to sink farmers to the level of peasants, as in the home countries. Any code, ideal, or culture system, governed mainly by racial or chauvinistic aims, will tend to prolong an era of nationalism, imperialism, and chronic warfare. No doubt the Chinese in Malaya, Indo-China, and the Netherlands East Indies and the Indians in Ceylon, Natal, and Fiji have shown a sudden increase in population and a rise in the standard of living as they have acquired freedom and opportunity to exercise in an ampler environment the very qualities to which their progress had been due. The rapid spread of new plants and animals introduced into similar climatic regions and their increase in individual size and vigor are familiar phenomena. Human migration to "quite another world" similarly means the spur of change and removal of the hampering web of tradition.

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[23] Bowman, "Commanding our Wealth," *Science*, Sept. 15, 1944.

The occupation of a virgin land and the carving out of new territories mean opportunities and elbow-room for new growth and a more energetic outlook, and with a people like the Chinese and the Indians, an effective means to counteract their psychology of drift and despair. The Indians in such colonies as British Guiana, South Africa, and Fiji, for instance, are remarkably free from the rigors of the caste system and unreasonable social and religious practices which obtain in India. There is improvement in standards of living, self-confidence, and self-expression, which have won the respect of the natives in those colonies. These are attributed to the lessening of the stringency of natural selection in the new environment. Thus, Oriental migration often means racial revival as well as economic health.[24] There is no cause for alarm about this. On the other hand, white men under the climatic handicaps of the tropics have shown not only lower longevity but also a terrible nerve exhaustion, which has been the most important factor in preventing the northern races from settling and procreating their line with the full share of the nerve vigor their parental stock possessed. The prevalence of psychoses or psycho-neuroses among the Westerners, whether in East Africa or India, in the Netherlands East Indies or Indo-China, amply testifies to this.

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[24] See Roberts: *French Colonial Policy*, p. 417; Sampson: *Development of Agriculture in British Guiana*. In the latter colony the percentage of literacy of the East Indians is 34.06 (as compared with about 5 per cent in Northern India), and the Post Office statistics show a deposit of $8,176 per head.

Climate and Colonization

The basal metabolism of the Asiatic peoples is found to be 10 to 15 per cent below Western standards. This, as well as their smaller body surface and weight, is responsible for a much lower protein consumption. The tendency of people in warm climates to choose diets lower in protein and fats, and higher in carbohydrates, than in colder climates is important in adaptation. Carbohydrates are cheaper than proteins and fats. The mechanism by which the body adjusts its diet is disputed, but, according to Stone, some effect of ultra-violet and infra-red radiation may be involved.[25] Natives or imported Asiatic laborers have accordingly a relative advantage over the European settlers whose customary diet ordinarily shows an excess of 50 per cent calories and 40 per cent protein beyond what is physiologically indispensable in the tropical environment. With their pigment, which constitutes a definite advantage in the struggle against continuous sunshine, with more sweat glands, with smaller rate and volume of respiration, with smaller blood fat and secretion of bile and urinary exertion, the dark and brown laborers, settlers, and colonists work at a far greater economic advantage in the tropical and subtropical lands than the Europeans.[26] Andrew Balfour, after discussing a good deal of scientific material with regard to the white man's capacity of acclimatization, observes: "So far as the race is concerned I am persuaded that the hot and humid tropics are not suited to white colonisation and never will be with our present knowledge even if they are rendered as free from disease as England." [27]

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[25] Robert G. Stone: *White Settlers in the Tropics*, p. 22.

[26] See my *Migrant Asia*, pp. 21, 182–184.

Whether in Costa Rica or Florida, in the Rhodesias or East Africa, in Brazil or Queensland, the white communities have colonized either the marginal tropics or the high, cool plateaus. In the wet-dry regions — even in white Australia — settlement has made little progress. Disease, climate, and the occupation of the land by the colored people are formidable obstacles to white colonization.[28] Further, when the white peoples have lived in the tropics, the story of their selfish and cruel exploitation of the natives forms a sad and sordid chapter in the history of civilization. Price observes: "The technique of British, French, American and Dutch slavery, of Queensland blackbirding or of modern South American peonage, has varied only in the degree of its severity. Nor have these white peoples confined their exploitation merely to coloured races. The British in the West Indies have treated their own kinsmen of the poor or the criminal classes as slaves." [29] Race relations will enormously improve if the zones of colonization of the world's empty spaces are demarcated by international agreement according to scientific principles of human migration and settlement, and the prevalent exclusive racial, nationalistic, or industrial policies discarded.

The bulk of the world's unused lands which may immediately be given over to the plough, estimated at about 4,200,000 sq. miles, lies in tropical and subtropical belts where white colonization and settlement cannot thrive. Especially in the Pacific area, there are extensive empty lands at an easy distance from the vast reservoirs of humanity in South and East Asia, where food shortage and unemployment have now become chronic.

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[27] *The Lancet*, Vol. 204, 1923.

[28] See Price: *White Settlers in the Tropics*, pp. 37, 230

[29] See also Russell: *Colour Race and Empire.*

On one side of the Pacific, man (and even woman who is here and there yoked to the plough) is cheaper than cattle; meat and milk dearer than rice, fruits, and vegetables. On another side, cattle luxuriate on five times as much land as man himself; machines rather than men tend ranches; fruits and vegetables are dearer than mutton; and the annual meat consumption is as high as 150 lbs. per capita in the United States and 250 lbs. in Australia and Argentina, as compared with only 25 to 50 lbs. of fish eaten by the Asiatics. Such economic and social contrasts cannot persist in this age of increasing communication and economic interdependence, especially in the Indo-Pacific area where commerce has for some years developed more rapidly than in any other area.

If there is to be freedom from want for all peoples and the improvement of their standards of living, and at the same time if the present world food shortage is to be effectively abolished or mitigated, the present unequal distribution of the population in the Pacific region and the uneven utilization of land resources, as shown by the great disparity in the size of agricultural holdings, must be abolished. The average size of agricultural holdings, 3 to 4 acres in India and China, reaches 167.7 acres in the United States, 223.9 acres in Canada, 499 acres in New Zealand, and 774.6 acres in Australia.

There are vast, rich inter-tropical lands which are now taken up by grasslands and forests, whether in America, Africa, South Asia, or Australia, to which entry is, however, restricted or completely barred for Asiatic colonists because of race prejudice or national exclusiveness. At the same time, no kind of economic cooperation among the peoples is forthcoming to extend the agricultural front to the marginal zones, which are too arid, cold, or wet. Thus the world's open spaces still remain vast in the aggregate, though in some the climatic problem remains unsolved. The prairie provinces of Canada and the coniferous forest areas in Siberia are still empty. Manchuria has been filling up recently but the migration movement from North China and Korea has now received a setback. Mongolia is thinly peopled, though Inner Mongolia has received streams of Chinese immigrants from China, and Outer Mongolia Russian immigrants from Turkestan and Siberia. Vast tropical lands in Central and South America, Africa, Australia, and the islands of the East Indian Archipelago are almost empty, with a population ratio of less than 10 per sq. mile. In the tropics the zone comprising the pampas of South America, the savannas of Africa, or the animal-raising territories of Australia, have far greater crop-raising potentialities than the equatorial rain-forests.

In rain-forest lands, agriculture is a strenuous and often precarious struggle as a result of the fecund and quick vegetative growth, the havoc caused by multifarious insects and pests, which destroy crops and kill off animals and humans, and the enervating influence of continually excessive humidity. Yet Ceylon, the western portion of Java, and one or two of the smaller Philippine Islands, which lie in the rain-forest zone, comprise a dense population (over 125 persons per sq. mile), and have developed a fairly intensive type of farming. Mackinder estimates that if the tropical rain-forests of South America and Africa were subdued to agriculture and inhabited with the present density of tropical Java, they might sustain 1,000,000,000 people, always provided that medicine had rendered the tropics as productive of human energy as the temperate zones.[80] With respect to the population capacity of Africa, other geographers have arrived at even larger estimates. According to Fischer, Inner Africa, roughly between the Sahara and Zambesi, is capable of supporting 1,500,000,000 persons instead of the present total of 79,000,000. Westermann also suggests that on the analogy of the population carried in similar districts of India, the savanna regions of Africa north and south of the primeval forest, might support 90 persons per sq. kilometer or 504,000,000

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[80] The Round World, *Foreign Affairs*, July, 1943.

THE MAJOR EMPTY LANDS OF THE WORLD

	Population (millions)	*Land area in thousands of sq. miles*	*Persons per sq. mile*	*Percentage Cultivated Land to total area*	*Population capacity (millions)*	*Immigration capacity (millions)*
ASIA						
Siberia	14.3	4,352	5	3.0	75 (Dudley Stamp)	60.7
Manchuria	33.8	460	73	15.1	70–75	36.2
Netherlands Indies (excl. Java and Madura)	19.0	683	28	. . .	150	41.2
Philippines	14.0	114	104	12.5	100 (Cruz)	86
OCEANIA						
Australia	6.5	2,975	2.2	1.32	20–60 (Griffith Taylor)	13.5 53.5
New Zealand	1.6	103	15	2.9	20	18.4
Africa	135	10,384	13	. . .	1650–2300 (Fischer, Penck)	1515–2165
NORTH AMERICA						
U. S. A.	122	2,974	42	18.87	300–350 (Leseohier; U. S. Dept. Agriculture)	178–228
Canada	10	3,457	3	2.7	100–250 (Kimble; Leacock)	90–240
SOUTH AMERICA	82	7,450	11	. . .	2,400	2,318
Argentina	12.5	1,079	13	10.75	150	137.5
Brazil	42.4	3,291	13	8.00	430–1,200 (Friedrick Friese; Penck)	387.6–1157.6

persons.[31] Taylor estimates the capacity of Africa south of the Zambesi at 82,000,000. The estimate of population capacity of the whole continent fluctuates between 1 and 3 billion persons, whereas the present population is only about 135,000,000. The myriads from China and India are now beginning to attack the rain-forests of Southern Asia, but these have been mostly excluded from the tropical grasslands, which comprise some of the most fertile, unoccupied territory in the world. The major empty regions of the world are tabulated on the opposite page with estimates of their population capacity, if the policy of exclusion of whole races and peoples be abrogated.

The Educative Influence of Asiatic Colonization

In spite of barriers of migration and handicaps of various kinds in the new lands, overpopulation and the desire for a higher standard of living were responsible, immediately before World War II, for an annual emigration of about 200,000 Indians, 150,000 Chinese, and 50,000 Javanese. The major safety-valves of population pressure in Southeast Asia are Burma, receiving immediately before the recent war (1937) 244,000 immigrants, Malaya receiving 405,000, Indo-China 71,000, Thailand 44,000, Netherlands East Indies 14,000, and Ceylon 150,000. Burma and Ceylon obtain almost all their labor force from India. Malaya obtains it from Southern India, Java, and Southern China. East Sumatra depends upon Java and Southern China. Borneo depends upon China, Java, and India. All these regions have profited from Indian and Chinese farming and vegetable gardening, and small trade and handicrafts, apart from work in the mines and plantations. Similarly Hawaii and the Philippine Islands owe their successful agriculture largely to the Japanese and the Chinese. The Chinese hold a strong position not merely in the Philippine Islands but also in Samoa, Tahiti, the Society Islands, and the Marquesas, and the Indians are strong in Fiji. Similarly the Tonkinese dominate New Caledonia. Indeed, to whatever portions of the undeveloped tropics the Indians and the Chinese have gone, whether Malaya and the Netherlands East Indies, Natal, or the island groups of the Pacific, they have helped in a more rational adjustment of resources to population needs than the white peoples.

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[31] *The African Today*, p. 302; see also Hailey: *An African Survey*, p. 124.

One needs only to refer to the patient, strenuous industry and the thrifty, persevering habits of the Indian farmers setting a good example to the Africo-Americans in Guinea and West Indies, to the Negroes in East Africa, and to the Fijians in Fiji.[32] Similar remarkable educative influences have emanated from the Chinese settlers in the Philippines, Borneo, Tahiti, from the Japanese in Hawaii, and from the Annamites in New Caledonia, who are all gradually training the natives of the Pacific to become self-governing peasant proprietors. In many of these areas, the native is being transformed from an indentured laborer on the plantations to an intensive farmer, either as tenant or as independent proprietor. The education of the natives in small-scale farming is largely the result of Chinese and Indian immigration in the Pacific region. But in spite of their contributions to the development of trade and economic prosperity in the Asiatic mainland, the Indian Archipelago, and especially the South Seas, where they have been residents for many years, no political rights have accrued to the immigrants, nor have they been protected against discriminatory measures. In the pioneer fringes the Chinese are the most numerous in Thailand, where their number is estimated from 2,500,000–3,000,000 residents, comprising about one-fifth of the total population. It is here that the Chinese face the worst racial discrimination, anti-Chinese measures having been passed in the fields of immigration, industry, education, and politics. The Chinese have been progressively pushed out of commercial and industrial occupations, their immigration into Thailand restricted, and their educational system assailed.[33] In order to prevent the Chinese Government from intervening in favor of the Chinese residents, Thailand has adopted a policy of non-intercourse with the former. Similarly the Indians, who are numerically the strongest in the inadequately developed lands of Burma and Ceylon (where they are about 1,300,000 and 1,200,000 respectively), have here encountered the harshest discriminatory treatment imposing various handicaps in immigration, education, and politics.

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[32] Vide: *Report of the Sanderson Committee on Emigration from India*, p. 22, and Sir H. H. Johnston's memorandum submitted in this connection, p. 162.

The European trader, planter, and missionary gradually will be relegated to the background in the tropical and subtropical regions, as plantation economy is replaced by small-scale subsistence farming and local production; and although these areas show a wide range of economic development, from Central Africa or New Guinea, where even the trader has hardly penetrated, to Natal, Java, Hawaii, or Fiji where the plantation company, the independent farmer, and industrial subsidiary all cooperate, no doubt all such regions will see more and more the emergence of the small-scale peasant proprietor's point of view. In the face of a chronic shortage of labor and general disinclination of native populations to work, the introduction of Asiatic agriculturists and settlers will contribute materially to initiate the next stage of economic development.

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[33] Landon: *The Chinese in Thailand.*

CHAPTER III

PACIFIC REGIONAL PLANNING

Small-Scale Farming, the Next Stage in Planned Economic Development in the Asiatic Colonies

PLANNING in Southeast Asia will rest on the divergent needs and the structural peculiarities of the various areas and peoples concerned. India, China, and Australia will emerge out of the recent war as manufacturing nations whose prosperity after the cessation of the war will largely depend upon an increase of purchasing power in Asia. India and China will also have to import rice in large quantities from Burma, Thailand, and Indo-China in exchange for their industrial products. Australian wheat will also feed India, China, and Japan, while Australian wool will also go largely to Japan and the United States. It will be in the economic interests of Australia to allow Asiatic immigration and to rebuild her trade and industry into the economic structure of Asia. For there will be greater peace and security for her as a member of a friendly concert of Pacific peoples than in her rigid economic dependence upon Great Britain. Most of the industrial commodities that Australia wants to sell are produced by Great Britain, while these will find a ready market in India and the Far East. Thus there is a bright future for the development of Australia's trade with South and East Asia as Asia herself becomes gradually industrialized and increases the purchasing power of her one billion human beings. Many raw materials, which modern industry requires, will also be available for Australia on cheap terms provided that she cherishes economic bonds with the Pacific peoples, and gives up the notion of white racial superiority underlying her policy of Asiatic exclusion.

Nor would overcrowded India and China, as they progress towards industrialization, need to send out to Australia hundreds of thousands of their migrants. The Asiatic migrants that Australia would receive could easily be diverted to her large open spaces, which could be utilized for agriculture so that there might not be any danger of attack on the standards of living of the industrial workers in her few cities. Of the total volume of Australia's exports, exports to Great Britain comprise 54 per cent and to countries of the British Empire 69 per cent. Forty-two per cent of Australian imports come from Britain and 59 per cent from British Empire countries. The remainder of Australian imports, about 37 per cent, come from Pacific countries, the United States, Netherlands East Indies, and Japan. It is with these countries and with China and India that Australia should develop her trade. Such development of course largely depends upon the extent to which Australia breaks out of the British Imperial trade circle as she has already, in some measure, broken out of imperial defense strategy and diplomatic contact with foreign powers. Australia's decision will be crucial in the reorientation of a Pacific, and hence of a world economic policy. This would largely rest upon the measure of her recognition of the new industrial and political power of Asia.

New Zealand is even more one-sided in the development of her primary industries, and, like Australia, has built up an exceptionally high living standard and ameliorative social services based on her export trade, which goes mainly to Great Britain. As the British market in the postwar period will be far less absorptive than at present, New Zealand has to lay the foundations of a better balanced economic structure by the development of her manufacturing industries. In her progressive industrialization, New Zealand can obtain material benefits from her trade connections with the Pacific countries. Many of the other smaller Pacific islands were hard hit immediately before the war by the development of the West African monopoly, which brought about a sharp reduction in the prices of materials providing vegetable fats. The increase of purchasing power in Asia and development of the export industries of the Pacific islands are interdependent. There is wide agreement among economists and administrators that one of the first steps in postwar planning should be to redress the balance in favor of raw-material-producing regions as against the producers of manufactured goods. Economic stability in large portions of the Pacific, in Malaya, and the Netherlands East Indies is thwarted by unfavorable rates of exchange between raw materials and imported commodities. Lord Hailey has stated that "it is generally agreed that one of the main objectives of postwar reconstruction must be to redress the inequality which primary producers have hitherto suffered in the world's markets, *vis-à-vis* the producers of manufactured goods."

Industrialization throughout this area has been in infancy. Only Java has shown some development toward manufacturing under the protection of tariffs and quotas introduced by the Dutch administration, which sought to divert surplus labor from agriculture. Elsewhere large-scale production is limited to the manufacture or processing of local products for the foreign market as represented, for instance, by the manufacture of rubber, extraction of petroleum, and smelting of tin. In Indo-China, the old policy of the French Colonial Government impeding the development of industries that might affect French interests has been abandoned. In the Philippine Islands also, steps have been taken to forestall the economic situation resulting from the loss of protected American markets as the result of the achievement of Filipino independence. With reference to rubber and tin, the restoration of international agreements, which stabilized prices and allowed reasonable profits, will assure protection of the standard of living. But such a policy can be effectively implemented through careful adjustment of production of these commodities in relation to their fluctuating demands in the world market by expert international committees. International agreement will also be necessary for preventing the imposition of high tariffs by the advanced nations against the exports of Southeast Asia so that the latter region may acquire the necessary foreign exchange with which to buy the manufactured goods of the industrial powers.

On the other hand, without some protective tariffs no local manufacturing can be developed in this area. That the economic stability of this region is dependent upon the demand for its exports in the foreign market is vividly illustrated in the Netherlands East Indies, which abandoned the open door in 1933 and offered large import quotas to those foreign countries that agreed to buy larger quantities of her exports. Similarly, the American-Filipino Commission reported in 1938 that unless the terms of the Tydings-McDuffie Act were changed and the American market kept open for the exports from the Philippines, there could not be any economic security. The above is enough to indicate the necessity of close international cooperation in this region for sponsoring the growth of small industries by a protective tariff, in order to diminish the present dependence upon agriculture and foreign exports and at the same time to keep open the world market for the major exports from this region.

Industrialization alone would not lead to an adequate improvement of the standard of living without the development of social services especially organized for planned combat against the various tropical diseases in Southeast Asia. Medical aid and sanitation as well as land engineering and reclamation can be undertaken only with the help of foreign loans from the Great Powers. Facilities for obtaining such loans will largely depend upon the tariff policies of the Great Powers as well as upon international agreements covering the production of scarce resources, and foreign loans for economic development and improvement of the standard of living.

While a regulated international economy with a series of controls in the raw material regions will insulate the latter in some measure against the effects of the unfavorable exchange between raw materials and imported commodities, it is now recognized that the basic condition of progress in the raw material regions is the development of small-scale production of primary products as distinguished from the production of raw materials. Both the increase of population as well as the expansion of wants beyond the bare minimum of needs in the tropical and subtropical regions will gradually make impossible the continuation of the extractive stage in industry and the plantation stage in agriculture. Such is the inevitable course of development in tropical and subtropical Asia.

In both Java and the Philippine Islands, Western capital and enterprise have stimulated economic and social progress much beyond the early stages of plantation economy and culture. In the Philippines, estate-cultivation has been effectively checked by land legislation preventing any individual from buying more than 40 acres, or a cooperative association from buying more than 200 acres of land. In Java, the Dutch administration has been equally alive to the needs of both estate-agriculture and peasant farming. In fact, the cooperation between capitalistic enterprise and small-scale native farming in Java is most significant for the future social and economic life of the undeveloped tropical and monsoon lands of Asia. When the world depression threatened the economic structure of Java with virtual collapse, the Netherlands East Indies Government introduced measures in 1933 for the complete control and partial prohibition of imports of rice, maize, soya beans, and sugar. In 1939 the Netherlands Indies ceased to import rice from Burma, Thailand, and Indo-China, and became self-supporting in this respect. This was largely due to the development of a network of irrigation and the efforts of an efficient agricultural service, causing a phenomenal expansion of the area and yield of rice. "That peasant production is mainly concentrated on crops for domestic consumption is not only due to the demand of the dense population and the fostering by the Government of a policy of self-sufficiency but also to some extent to the native fear of commercial exploitation, engendered by the memories of the 19th century when the peasant was obliged under compulsion to produce certain crops; he is still suspicious that in producing for export the main proportion of profit may go into the hands of the middlemen, very largely Chinese and Arab traders."[1] In Sumatra, Celebes, and Borneo also the natives have been encouraged to become independent producers of commodities for foreign markets, with the production of copra, pepper, kapok, tapioca, and coffee already largely in their hands. Just before the Japanese invasion, the Netherlands Indies supplied the world with 86 per cent of its pepper, 75 per cent of its kapok, and 27 per cent of its palm and copra.[2] It is worthy of note, as indicating the future economic trend in the whole of this region, that during the period when food self-sufficiency for the phenomenally increasing population was achieved in the Netherlands East Indies, a sharp and sudden demand for and supply of consumers' goods occurred simultaneously. P. H. W. Sitsen has shown that a complicated structure of secondary industry, as contrasted with the primary industry that developed as an adjunct to the large estates, grew out of the Indonesian economy in the form of cottage, small-scale, and factory industries.[3] This growth of industrialization was directed and controlled by the Government providing, in the words of Virginia Thompson, an example of "extraordinary achievement on the part of a paternalistic and intelligent colonizing power."[4]

Needs of Postwar Population Adjustment

Three major features of postwar population adjustment in Southeast Asia may be envisaged.

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[1] E. N. Van Kleffens: *The Netherlands Indies*, in *Foreign Affairs*, October, 1942.

[2] *Netherlands Overseas Territories*, p. 50.

[3] Sitsen: *Industrial Development of the Netherland Indies.*

[4] See *Pacific Affairs*, March, 1944, p. 109.

(*a*) The excessive population pressure in India, China, and Java can only be relieved by progressive industrialization and emigration, coupled with a progressive social policy of birth-control, improvement of national income and standard of living, and social security. Industrial developments in India, China, Java, Thailand, and Australia will increase the volume of trade between Asia and the West, with the improvement of the purchasing power of the teeming millions. Thus both Great Britain and the United States will be able to maintain their high levels of exports, employment, and income. Freedom from want in Southeast Asia rests largely on freedom of emigration. But the right to emigrate to new lands as surplus outlets for overpopulation is dependent upon the acceptance by the overcrowded peoples of Asia of the policy of birth-control. No people, even if they jostle one another for lack of standing-room, have the moral right to go wherever there are open spaces on the earth. They should accept the obligation to maintain an internationally agreed minimum of living, if need be by birth-control, and work out their demographic policy accordingly. Birth-control and not emigration should be regarded as the major cure of overpopulation.[5] Neither Germany and Italy, nor India, China, and Japan could claim any rights to migrate to other lands while they did not adopt a social policy of population restriction but on the contrary encouraged larger families. On the other hand, all these countries should be permitted to share in the advantages of the Atlantic Charter, i.e., "access on equal terms to the trade and to the raw materials of the world."

(*b*) The raw-material-producing regions, Malaya, Sumatra, Borneo, the Pacific Islands, and New Guinea, should be encouraged to begin the next stage of their economic development by gradually substituting native small-farming, village-, and cottage-production and factory industry for plantations, estates or mines, owned and managed by the Europeans. As in India, so in heavily crowded Java, Thailand, and Indo-China, economic prosperity is linked with industrialization, which in the early stages must be based upon the utilization of local raw materials and types of labor and the needs and purchasing power of the home market. In the territories occupied in Southeast Asia the Japanese, in order to mitigate unemployment and to increase self-sufficiency, forced the native population, formerly engaged in rubber and sugar growing, to grow rice or vegetables for their own requirements.[6] After the recent world war, the slackening of population growth in the industrial countries of the West and the greater use of substitute materials will probably lead to a diminution in the demand for tropical raw materials or a reduction in their prices to such unremunerative levels as to call for a new agricultural adjustment. In fact, this tendency to substitute small-scale subsistence farming for estate agriculture [7] was already discernible before the recent war in many colonies.

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[5] See my *Political Economy of Population*, p. 333.

Small-scale farming is more firmly rooted and secure and is capable of quick expansion and increase of output. This economic transition, providing a broader basis for production, can be materially aided by the immigration of agriculturists and settlers from India, China, Java, and other Asiatic countries. Where the native populations are so inadequate in numbers that they cannot at the normal rate of increase effectively develop their resources within a few centuries, or do not possess the requisite agricultural skill, immigrants from the overpopulated agricultural regions of South Asia have to be attracted and given every opportunity to settle on the land. Gradually the crops and vegetables they used to grow in their homelands, and their agricultural skill and experience will spread in the lands of their adoption. The natives will soon learn to settle more closely, much to their economic advantage. Between the natives and the immigrants, there will inevitably develop a community of interests, which may be followed by active reciprocal participation in social life and even by intermarriage. It is thus that the Asiatic agriculturists, rather than the petty traders, moneylenders and shopkeepers, may be expected to fill an economic gap, which the narrow and apprehensive attitude of the great colonizing nations of the West leaves open.

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[6] See Einzig: *The Japanese New Order in Asia*, p. 63.

[7] See *World Agriculture*, pp. 175–176.

Throughout Southeast Asia, partially excluding the Philippines, the Chinese and the Indians constitute the great bulk of the middle class as shopkeepers, merchants, produce-buyers, moneylenders and mine, plantation, and small factory owners. They are also skilled artisans and handicraftsmen of all sorts. The moneylender, the middleman, and the intermediary all become unpopular, especially when they belong to an alien race that is regarded as appropriating an undue share of the wealth of the country. Agricultural colonization must in the future be encouraged, controlled, and directed to zones planned and laid out in the virgin areas.

In Thailand as in Malaya, Borneo, Cochin China, and Cambodia, where Chinese agriculturists are not very numerous, they have, however, contributed materially to agricultural prosperity by their cultivation of special crops such as pepper, pineapples, tapioca, hemp, tobacco, gambier, mulberry, and garden vegetables in which they have a special monopoly. Similarly, the Tamils of South India who have migrated to the northern plains of Ceylon have introduced an extensive and comparatively efficient cultivation of rice, tobacco, and vegetables without the aid of irrigation tanks; and their adaptive cropping, well irrigation, and agricultural methods in the dry zone present a striking contrast with the traditional Sinhalese village cultivations in the wet zones. The Indians have also introduced dry farming and irrigation into Ceylon and Northern Burma, rice agriculture in Southern Burma and Malaya, and cattle and dairy farming everywhere, monopolizing the milk trade in the cities of Singapore, Bangkok, and Medan.[8] Agriculturists from Bengal have also gone to Thailand through Burma and are carrying on cultivation. In Fiji, the Indians are successful cane-growers, cultivating more than a third of the cane area in that island. The majority hold land as tenants from the Fijian proprietors, the terms and conditions of lease being controlled by the Government. Both economic and social relations between the Indians and Fijian owners are cordial, although the Indians tend to occupy the better land near the native villages, the improvident Fijians being compelled to move out to poorer lands.[9] The Chinese hold a strong position in the Pacific not merely in the Philippine Islands but also in Samoa, the Society Islands, and the Marquesas where their influence on native agriculture has been most beneficial. In the Hawaiian Islands, rice production is largely in the hands of the Chinese who appear to be immune to fevers of the rice swamps.

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[8] See my *Migrant Asia*, pp. 28, 113–118.

The great problem of agricultural colonization in the Pacific would be to direct the movement of Asiatic intensive agriculturists for the purpose of land settlement, and at the same time set apart areas for the indigenous inhabitants who might not suffer from land shortage. Where the staples are root vegetables, the introduction of rice agriculture would demand also a change in the allocation of the land and reorganization of the labor force, achieved in a deliberately planned manner. The easiest and quickest method would be first for the plantations to invite Asiatic workers and their families, who should have the opportunity of becoming free farmers after having worked in the plantations for a certain period. Thus the system which has been adopted for the importation of Indian labor into Fiji, and of Japanese labor into Brazil and Hawaii, the Japanese mandates, and Davao, might be usefully adopted for the agricultural development of the Pacific.

The small-scale production of primary products, as distinguished from the production of raw materials, the variegated

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[9] Coulter: *Fiji Little India of the Pacific*, pp. 116–119.

"*petite*" culture of Asiatic immigrants and the natives, indeed, afford the true basis of economic equilibrium and indicate the line of future development of large portions of the tropics, which have outgrown the period of unchecked exploitation, slavery, or indentured labor, the natives having been weaned from their former habits of indolence and indifference. Thus the same forces of progress which were initiated in a previous stage by small groups of white traders, planters, and industrialists in different areas of the tropical zone, now call for mass migration of agricultural colonists and settlers from the vast human reservoirs of India, China, and Southeast Asia.

Modification of Racial Policy

(*c*) The empty spaces of such parts of the British Commonwealth as Australia, New Zealand, East and South Africa, should be thrown open for planned colonization and settlement by Indian and Chinese agriculturalists. Dudley Stamp has observed: "Indian agriculture, as far as crops are concerned, could be applied to a considerable part of uninhabited Northern Australia. When the time comes for the development of this great area of Northern Australia, the lessons learnt in India will be invaluable. It is scarcely too much to hazard that in the dry, light soils of North Australia the oil-seeds, particularly perhaps the groundnut,[10] will prove a salvation as they have done over much of the dry belts of Burma." Some geographers advocate modification of the White Australia policy and admission of Japanese, Chinese, and Indians for the agricultural progress of Australia and diminution of friction between Australia and Asia.[11] The introduction of the camel into the Australian desert by Indian emigrants has already been an important achievement:

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[10] Perhaps also sesamum, mustard, linseed, and Kathiawar cotton.

[11] Griffith Taylor: *Environment and Race*, pp. 338–341. He sees good promise in the ultimate mingling of the European and Sino-Japanese types in Australasia which will produce a dominant race, somewhat resembling the Slavs and Western Asiatics around the Caspian Sea and the Mestizos in South America.

the camels now number about 8,000 and have become indispensable in the dry regions. But the full agricultural benefits of Indian colonization have not been reaped. European cattle show very heavy mortality in the Northern Territory due to climate and tick-borne disease. The Australian Government now encourages the breeding of a beast, which is a cross between the European cattle and zebu, and which can stand the climate better and at the same time supply good beef, especially in its hind parts. The introduction of the Indian cattle or buffalo will lead to the eradication of the cattle tick from the thinly stocked pastures of the vast tropical north and can more effectively establish both cattle-raising and agriculture on sound lines.

The population capacity for the south and east of Australia — "one of the best areas in the world for white settlement," — has been estimated by Griffith Taylor on the basis of tillage practice in the United States at about 20,000,000, which is more than three times the present population. Haushofer estimates that the tropical north and northeast of Australia whose heat and humidity make large-scale colonization by the white races impossible, could offer homesteads for 30,000,000 migrants from Asia. (He refers of course to the Japanese for whom in his opinion the climate is more suitable.) [12] The Asiatic migrants would work on the land on the basis of 10 to 20 acres as contrasted with the agricultural demand of 40 acres for European farmers, 400 acres for the Canadian prairie farmers, and 775 acres for the Australian farmers.[13] Heat and humidity are also unfavorable for the growth of temperate crops. Thus an authority of great experience, Williams, observes: "In these ultra-tropical latitudes we are faced with a further difficulty in the wilting effect of the great heat upon our temperate crops which confine such activity to the cooler months of the year. Semitropical crops such as groundnuts, cowpea, and maize might be grown during the wet season for some milking cows, and temperate crops would be grown during the winter months with the aid of hand irrigation." Another geographer, Price, remarks: "It is possible that a colored population, content with a very low standard of living, could settle parts of Northern Australia as mixed farmers, cultivating seasonal crops and keeping Indian buffaloes or zebu cattle."[14] One estimate puts the population capacity at 450,000,000 for the whole of Australia, which is the same as the population of China. But 40–60,000,000 can be supported if the standards of Central Europe and elsewhere are adopted and coal is adequately utilized. Tropical settlement can be stimulated here only by planned emigration of Chinese, Indians, and other peoples. The last continent available for human occupation and use shows not merely a reduction in the natural increase of its population but also a concentration of about half the total population in the six state capital cities. Similarly, a decline of population growth is also marked in New Zealand, where only about 1,500,000 acres are cultivated for crops, mainly wheat, oats, and turnips, 3,000,000 acres represent the actual occupied agricultural holdings, and 17,000,000 acres are sown with grass out of a total area of 66,500,000 acres. It is estimated, however, that 60 per cent of this is capable of utilization. Where there are dense evergreen forests in the wetter valleys and lower mountain slopes, Indian agriculture could be introduced. "Even the poorer soils are largely capable of profitable utilization by reason of the comparatively mild and equable weather conditions."[15]

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[12] *Zeitschrift fuer Geopolitik*, p. 961

[13] Griffith Taylor: *Australia*, p. 443.

In the 19th century, the main stream of migration flowed into the urban cores of industrialization in the pioneer regions. In the 20th century, planned immigration restricted to *bonafide* agriculturalists has to be directed to agricultural belts, and quotas specified every year in order to regulate agricultural colonization. Agricultural colonization in the pioneer fringes is attended with much less economic discord than when immigrants settle in the cities as industrial workers, traders, and artisans. Nor would subsistence farming, such as the Asiatic migrants could adopt most easily, and which would be more appropriate than commercial agriculture in the present situation in world agriculture, require settlement services, railway, and trade systems on a scale which might be beyond the financial capacity and technology of the new countries.

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[14] *White Settlers in the Tropics*, p. 115.

[15] New Zealand Official Yearbook, 1928, quoted by Condliffe in *Pioneer Settlements*, p. 427.

Dr. Bowman considers that the expenditure on social services required to establish Oriental immigrants in new regions, say the Amazon basin, would be such as to check any kind of large-scale migration. Besides, such services "would require time for seasoning through experimentation." For the agricultural colonization of new lands by groups of self-initiating subsistence farmers like the Orientals who would live in isolated hamlets of a few hundred small villages, the social services need to be far less varied and ramifying than in the case of migrants from the temperate lands, who could only be induced to settle on the basis of production of cash or commercial crops that have to be transported and sold to foreign markets. The example may be adduced here of the extraordinary cheapness of the colonization experiment in the Outer Islands, carried on under the Netherlands East Indies administration. Everywhere the village communal system was rehabilitated in the virgin jungle, and this insured mutual service among the settlers, greatly reducing financial assistance from the Government. The Government arranged to send new settlers to the Outer Islands a few months before harvesting, viz., from January to August. These helped the old settlers with the harvesting and were helped in their turn by the latter in clearing the lands and building the houses. The Government arranged for loans to tide settlers over until the first crop was raised. In the early days of the settlement it cost the Government 300 *guilders* per family. As the Government benefited from the experience of making the communal system work in the wilderness, the cost was reduced to only 45 *guilders* per family.[16]

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[16] Vanya Oakes: *Tanah Sebrang — the Land Beyond*, in *Asia*, November, 1944.

A large proportion of unused lands in the world, estimated at about 4,200,000 sq. miles, cannot be given over to the plough because the agricultural practice of settlers from the temperate lands postulates the cultivation for profit of only fodder crops for overseas markets. The latter cannot stand the climate nor be successfully grown because of the distance from markets and the absence of railway and trade developments in pioneer lands. An example may be given from tropical Australia, which cannot grow temperate crops but can successfully grow rice, bajra, jowar, marua, maize, and millets. Price refers to some authorities who believe that the Adelaide-Alligator coast would produce rice under such properly controlled irrigation as is practised by certain Oriental peoples.[17] A Director of Agriculture in the Bombay Presidency also mentions that the conditions in tropical Australia are not dissimilar to those in the Ahmednagar, Sholapur, and Bijapur districts in India: "We have there an average rainfall per *taluka* [district] ranging from about 17 to about 27 inches and with six months of the year having very little rain. Yet these areas support a large population dependent on agriculture. In Ahmednagar and Sholapur districts there are of course certain areas commanded by canals, but the great bulk of the three districts has got no irrigation. Both kharif and rabi crops are grown." Commercial cropping by thousands of pioneer settlers would require substantial capital investments for adequate social services and road and railway developments. By contrast, subsistence farming would require much less expenditure on irrigation and communication projects, while self-sufficient Oriental settlers would bring their own appropriate crops, farming and irrigation practices as are practised by them in their homelands. This would gradually lead to greater diversification of farming and the development of light manufacturing industries. In Queensland, Cuba, the British West Indies, and Costa Rica tropical economy under white domination has rested on monoculture, slave or semi-slave labor, or artificial tariff and subsidy, which have all stood in the way of the transition to the next stage of economic development, while at the same time exposing white settlers themselves to exploitation and the vagaries of the world markets.

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[17] *White Settlers in the Tropics*, p. 114.

Thus diversified subsistence farming, and not commercial farming, may be accepted as a general working principle for planned pioneer settlement, whether in the Netherlands East Indies, Australia, Africa, or Brazil. Australian writers stress that the future agricultural development of the continent is limited by the demands of specialized commercial farming. There is hardly any region in the world where there are so few crops that occupy most of the cultivated area demanding little care and agricultural knowledge and technique.[18] Thus crops and agricultural practices are regulated even more by commercial factors than by soil and climate. With agriculture no longer dependent on the world demand for primary products and with the lifting of the ban on Asiatic immigration, the transition from extensive to intensive land utilization will be easy. Griffith Taylor's estimate of Australia's potential arable land at 716,000,000 sq. miles, as compared with only 148,000,000 today, demands a change in the accepted system of extensive exploitation of the land, rooted as it is in the social background of a sparse urban population and the economic background of production for the world market. Similarly for New Zealand, now essentially a pastoral country with about 96 per cent of her utilized land serving pastoral industries, a variegated crop and fruit farming by small holders can introduce a new era of economic development. Much of the success of the development of the pioneer fringes would depend on the adoption of the right kind of agriculture, which would not lead to a glut in raw material or non-food crop production, and on the rate of migration. The latter should not be too rapid to prevent racial and cultural assimilation.

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[18] See Wadham and Wood: *Land Utilization in Australia.*

Australia, New Zealand, Canada, and South Africa should take lessons from the recent lifting of the ban by the United States against the immigration and naturalization of the Chinese. Before the Senate of the United States, there is also a proposal for the admission of Indians on a quota basis. Instead of rigidly adhering to the myth of racial superiority with its corollary of unalterable racial composition, and thereby contributing to instability in Southeast Asia, the British Dominions should study the success of the United States in the task of assimilating its diverse stocks into a fertile culture, enriched instead of impoverished by racial contrasts. The myth of Nordic or Teutonic superiority is as dangerous and disruptive in the West as in the East.

So far as the undeveloped lands in Southeast Asia are concerned, economic and social planning should have the definite aim of a scheduled liquidation of the colonial system. The immigration of Indian and Chinese farmers should be so planned and regulated that the native populations are not ousted from their due share in the resultant economic development. A cheap labor supply must not be permitted to reduce home employment and lower standards of living. The conditions of employment, including wage levels, housing, medical aid, and social security, should be under the constant scrutiny and supervision of an Inter-regional Council, which will have as its main objective the approximation of wages and standards of living of this entire area, until recently colonial or quasi-colonial and exhibiting the coexistence of misery, disease, illiteracy, and a cheap labor supply with vast potential resources.

The Pacific Regional Council

A Pacific Regional Council, sponsored by Britain, America, and independent India, Java, Thailand, the Philippines, China, New Zealand, and Australia, would be the most appropriate body to plan migration movements and settlements, to apply international labor standards adapted to the region on a uniform basis, and to borrow and invest vast capital in agricultural undertakings, reclamation and drainage works, and industries. It would secure a common economic policy for this entire region in respect of the procurement of foreign loans for internal development and tariffs, and common agricultural and migration policies; moreover, it would implement economic administration and social services for improving the standard of living of the natives on common lines as far as practicable. Where political life is not adequately organized, as in Burma, Malaya, Sumatra, Borneo, Celebes, or New Guinea, this Council would assume social services that are undertaken by the state in Java, Thailand, or the Philippines. Without active economic and social aid from outside, the next phase of economic and political evolution cannot be initiated in these lands. On the other hand, the Regional Council would permit an equal collaboration of the underprivileged areas and peoples of Southeast Asia with the world forces, without any imperialistic control and influence. The Pacific Regional Council would not only take the lead in formulating and implementing trade agreements for the division of markets; it would regulate the output of raw materials, rates of exchange between raw materials and imported commodities, and migratory movements from the human reservoirs of East Asia. It would also secure collaboration for the strategic defence and security of the entire region. The acceptance of military responsibilities by the Pacific Regional Council would rest in the first place on an agreement of the Great Powers to implement a general scheme of collective security in the Pacific on the basis of availability, without restriction, to all the peoples concerned, of strategic naval and air bases, and secondly, on an agreement among the various peoples concerned to curtail their sovereign rights in favor of a collective system in the Pacific implemented as part of an international system.

The economic and political instability of South and East Asia where half of humanity lives in only 14 per cent of the globe land surface, is due to the differential population growth and standards of living and the sense of political and social injustice, which economic insecurity or dependence fosters. Not merely in Europe but also in Asia, peace and social justice are indissolubly connected with the creation of an optimum population and a fair distribution of resources and markets as well as of surplus population, which cries for migration and colonization. An international acceptance of certain physiological and statistical criteria of the optimum population for the peoples of the earth, and an international open door policy, bridging the contrasts of standards of living in full or empty territories, and meting out equal treatment (in respect to economic and social rights) to alien workers, whose immigration will be controlled by an international migration convention (with universally compulsory standards of selection), are the urgent needs of the world economic situation. These will at once regulate trade, capital, and migration movements for the increase of world productivity on the one hand; and on the other hand, they will prevent a prolific nation from sabotaging the higher standard of living of peoples of superior productivity and culture, thus safeguarding the world's economic optimum from attempts to undermine it.

§ *Equalization of the Standards of Living*

The sincerity and practicability of the Atlantic Charter that promises dependent and backward communities of the world freedom from want and fear will be first put to an acid test in Southeast Asia and the Pacific colonies and dependencies. Racialism underlying the White Australia Policy will be as much an anachronism in the postwar period of global food shortage and dual standard of living in the Pacific as the subjection of vast unused or inadequately used raw material and mineral regions to imperialistic domination and economic monopoly. Dominion Status for India and the independence of China cannot suffice for the improvement of the standards of living of 850,000,000 persons imprisoned within their four-acre uneconomic subsistence holdings. Nor would the liberation of southern Asia from the Japanese stranglehold mean much if in the name of imperial trusteeship or partnership or international stewardship, economic adjustment and full utilization of agricultural resources and industrial potentialities are impeded by age-old commercial and migration policies. For the teeming millions of Asia peace and security will have to be based on something more than a political status and can only be safeguarded by constructive international cooperation for which Great Britain possessing, as she does, the largest extent of unused or inadequately used areas of the globe, has to take a lead in bringing about an approximation of the plane of living among free peoples. On the one hand, the economic uplift of the colonial and quasi-colonial lands and their neighbors steadily moving toward a more diversified economic structure will create new purchasing power and a new market for Western capital and enterprise unknown in the past. On the other hand, the agricultural exploitation by the Indians, Chinese, and other Asiatic peoples of the vast open spaces of Australia and the Americas will wipe out the global food shortage and add to the aggregate purchasing power of humanity and thus increase both wealth and employment for the industrial millions of the crowded and manufacturing zones of the earth. Thus Asia and Europe, the Old and the New World, may approach equality in the supply of food, resources, and essential materials and in the plane of living in a juster and more rational world economy. Population adjustment in Southeast Asia and the Pacific is the cornerstone of peace in both the East and the West. For both social justice and world peace are one and indivisible.

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